THE ARCHITECT & BUILDING NEWS

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2 SEPTEMBER 1954 · VOL. 206 · NO. 10 · ONE SHILLING WEEKLY

- SHOWROOM AT HORSHAM
- BANK OF ENGLAND PRINTING WORKS, DEBDEN
- STOCKHOLM'S UNDERGROUND

AQUASHEEN

WATER THINNED ENAMEL

REDUCES DECORATING COSTS

When considering interior decoration, **"AQUASHEEN"**, the remarkable new Water Thinned Gloss Enamel shows immediate advantages—particularly in price.

"AQUASHEEN" cuts labour costs— the highest single factor in painting—because it can be applied with large wall brushes as quickly, as easily as water paint.

"AQUASHEEN" cuts material costs. The initial cost is less than conventional gloss paints; it covers approximately one fifth greater area.

"AQUASHEEN" gives an enduring gloss finish; it is easily washable; there is no objectionable paint smell. It complies with the Factories Acts, claiming 7 years exemption from repainting.

Available only from the sole manufacturers and distributors who will gladly send you full particulars.

"Aquasheen" is for interior use only.

"Aquasheen" is not a Latex Emulsion Paint.

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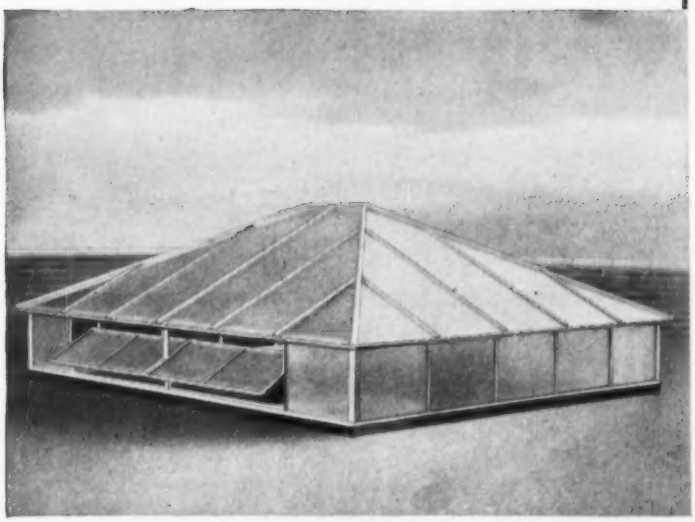
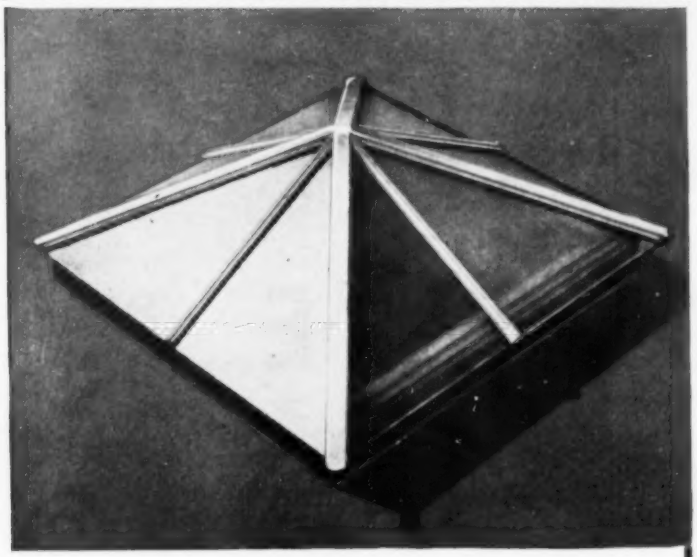
Telephones: Newcastle 25151 • London, Grosvenor 6401-5.

FOR EASIER BUILDING

WILLIAMS & WILLIAMS





ALUMINEX

STANDARD

ROOF

LIGHTS

It is so easy to erect an Aluminex Standard Roof Light. All the parts are cut and drilled ready to assemble and delivered complete with nuts, bolts and full fixing instructions. The corrosion-proof alloy combines strength with lightness. No putty, no paint is *ever* required. Condensation channels drain water outside. Lantern and deck lights come in many standard sizes, and can be fitted easily to any foundation, wood, brick or concrete.

Williams and Williams make Aluminex Patent Glazing, Roften Toilet Cubicles, Metal Door Frames and, of course, Metal Windows. You can get them from your Merchant or direct from us.
Williams & Williams Ltd., Reliance Works, Chester

A

- Erected from standard size plates.
- Inside or outside flanges.
- Universal brackets and stay rods ensure complete rigidity.
- Standard jointing compound gives watertight joints.
- Sound design gives easy erection and years of trouble-free service.

A Mather and Platt tank of 80,000 gallons capacity erected at an R.A.F. station.

Cast Iron

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379

MATHER & PLATT LTD Park Works Manchester 10 · Park House Gt. Smith St. London S.W.1

KINNEAR SHUTTERS

Corporation Car Depot, Holdenhurst Road, Bournemouth, fitted with 6 Kinnear Shutters in 1902.

Kinnear Service Data

Date of installation.. 1902
Still in operation..... 1954
Years of Service ... 52

In this series we have so far illustrated, apart from the one shown above, 18 installations of Kinnear Shutters in various parts of the country, showing an average length of service of 37 years.

Sole Manufacturers:

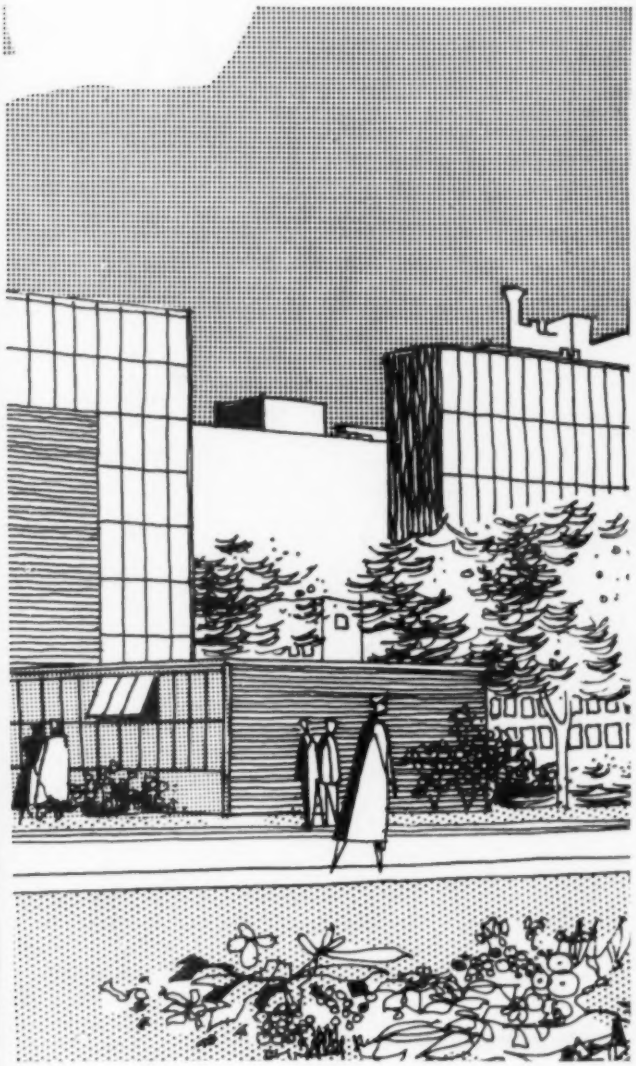
ARTHUR L. GIBSON & Co., LTD.

Twickenham, Middlesex

PATENT GLAZING

From a design by Edward D. Mills, F.R.I.B.A.

SPECIFICATIONS



4. MUNICIPAL GARAGE

The increase of road passenger transport necessitates the construction of repair and maintenance garages for motor vehicles. The design illustrated shows such a building planned to accommodate a large number of double decker buses, and to give facilities for maintenance and repair work.

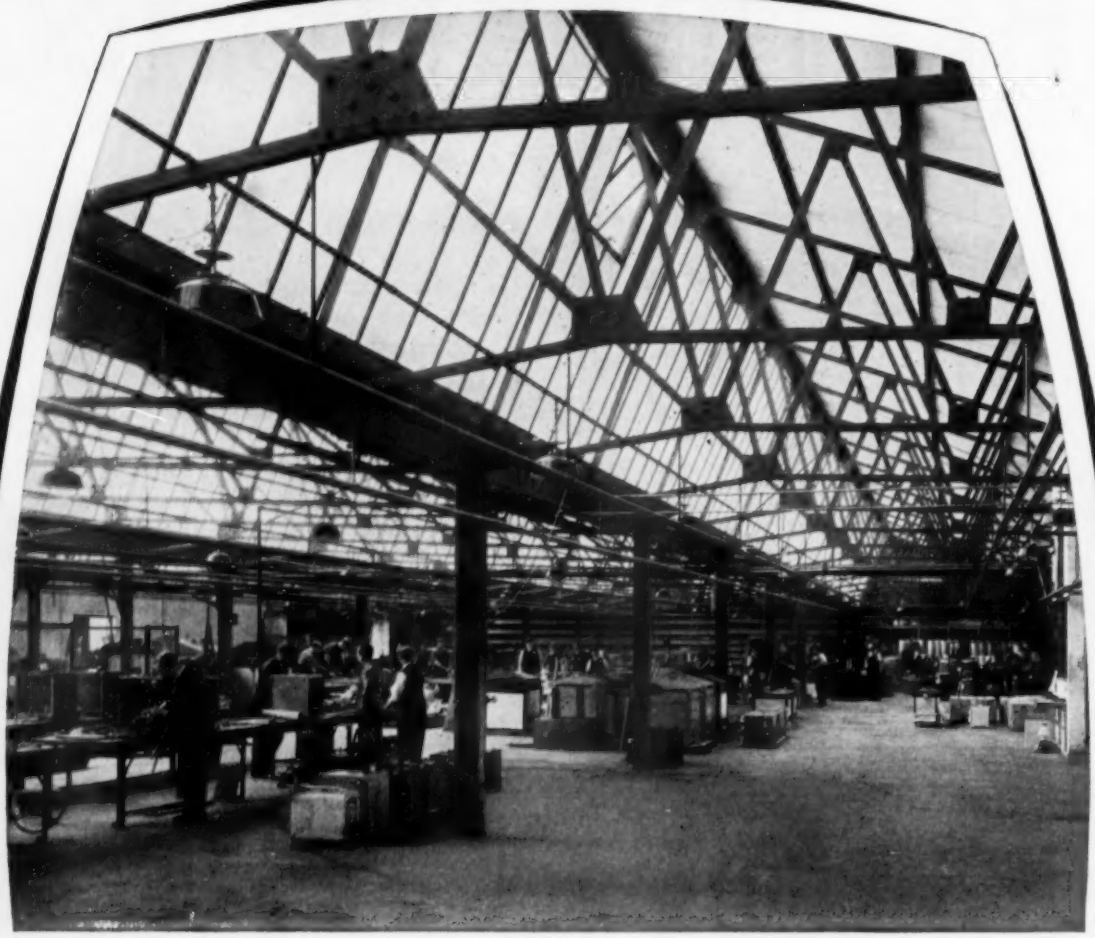
One of the important features in such a building is the provision of adequate daylight so that work may be carried out under the most comfortable conditions. This has been provided by side wall glazing using patent glazing bars glazed with wired cast glass with opening lights, operated by hand or electrically controlled gearing.

To ensure an even distribution of light over the large floor area, monitor roof lights have been incorporated, which admit not only north light, but some south light. These will be glazed with patent glazing with remote control for the opening lights.

For all facts about patent glazing, write to the Information Bureau, The Patent Glazing Conference, Burwood House, Caxton Street, London, S.W.1

P G C

ISSUED BY THE PATENT GLAZING CONFERENCE



patent glazing by . . .

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Telephone: ELGAR 7292-5 *Telegrams:* LUXFER, HARLES, LONDON

PATENT GLAZING

for large municipal garages...

On projects of this nature, or indeed on any where good natural lighting is essential, the value of patent glazing is undisputed. These jobs, however, do call for special experience and capacity - qualifications which are necessary to first class service. Heywoods are especially fitted to provide this service, and would be pleased to convince you if you write for literature or ask our representative to call.

specify . . .

PATENT GLAZING BY HEYWOODS OF HUDDERSFIELD

W. H. HEYWOOD & CO. LTD., HUDDERSFIELD. Telephone 6594 (8 lines)

Branches at: London, Manchester, Glasgow, Belfast Newcastle, Birmingham, Liverpool, Leicester, Nottingham, Coventry, Bristol, Plymouth. Associate Company in Eire: W. H. Heywood & Co. (Ireland) Ltd., 63-64 Upper O'Connell Street, Dublin.

ndh 3540

13 Amp. RING MAIN SOCKET OUTLETS & PLUGS

SETTLE for NETTLE

Above is illustrated the Nettle 13 Amp Range. All Nettle 13 Amp Socket Outlets have a porcelain base and where applicable are to B.S.S. 1363. The Switched Shuttered Socket Outlet shown in the upper group (Ref. SF 1230) will accept plugs to B.S.S. 1363 and can be mounted in B.S.S. 1299 conduit boxes. The switch is for A.C. only and has silver contacts. For the Two-Gang Flush Shuttered Socket Outlet in the lower group (Ref. DF 2230) a pattress is available for converting to surface pattern.

Nettle have for over a quarter of a century specialized exclusively in perfecting the design of all types of shockproof electrical wiring accessories for industrial and domestic installations. In addition to a very wide variety of lampholders, flush and surface type A.C. switches, plugs and socket outlets, bell transformers, handlamps, weatherproof couplers, rubber-clad weatherproof sockets and plugs, etc., there is a complete range of ring main accessories and many fittings eminently suitable for consideration in architectural schemes. Our specialist engineers are available for consultation without obligation.

★ *The new* **Nettle** *Catalogue contains details of over 300 items from the* **Nettle** *range. This catalogue is a valuable work of reference for Architects and is available upon request.*

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PATENT APPLIED FOR

- Aesthetic appearance
- A pleasant line of contour
- Economy in design
- Foundations reduced to a minimum

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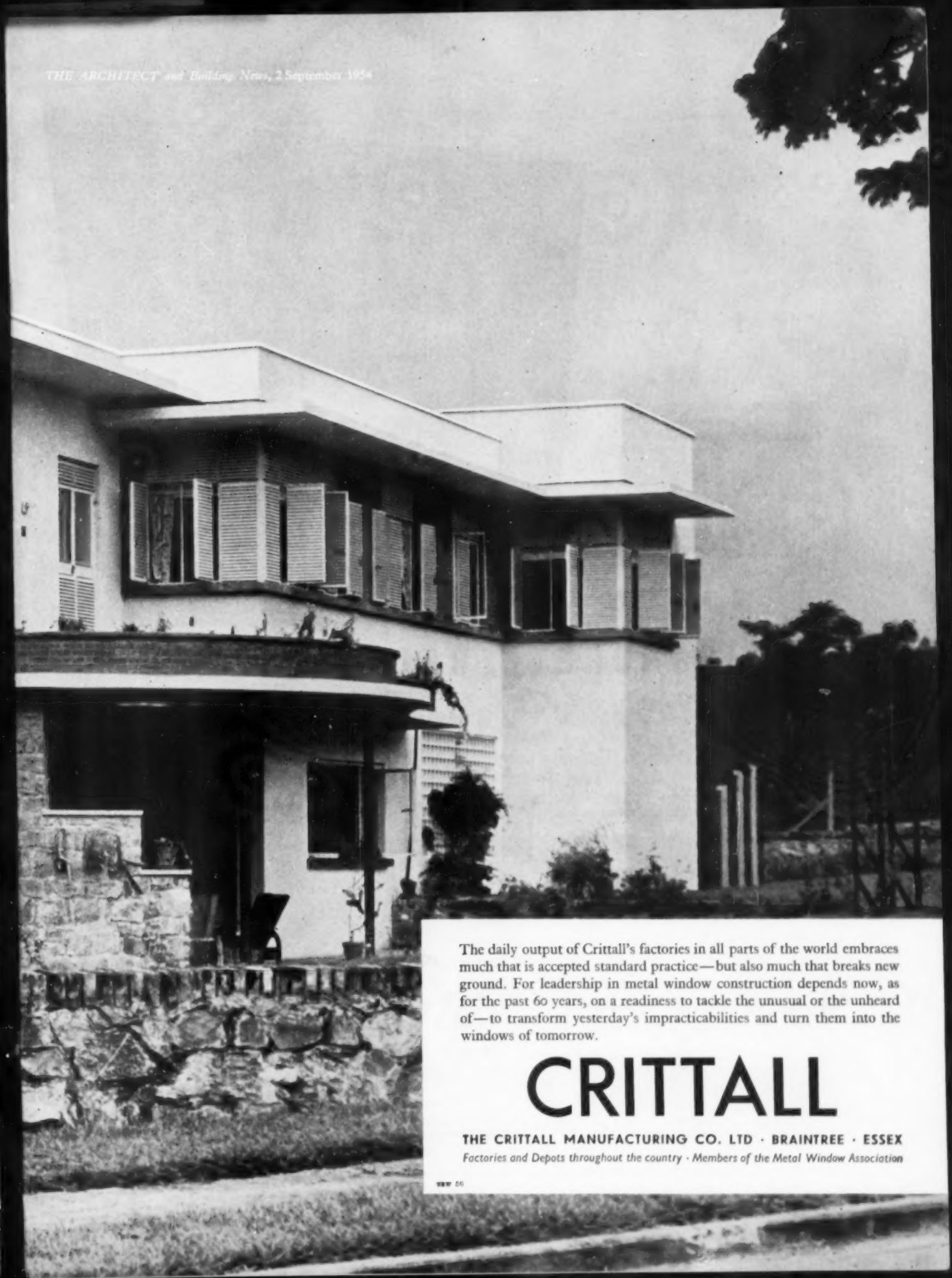
NINE ELMS STEEL WORKS · BURWELL ROAD · LONDON · E10 · Telephone: LEYTONSTONE 4021

B

LOUVRES BY CRITTALL

This illustration shows THE TRINIDAD RESIDENCE OF MR. D. D. ASH
(*Architects: Ash and Watson Ltd. Trinidad*) in which are installed CRITTALL STANDARD
METAL WINDOWS AND CASEMENTS FITTED WITH LOUVRES



The daily output of Crittall's factories in all parts of the world embraces much that is accepted standard practice—but also much that breaks new ground. For leadership in metal window construction depends now, as for the past 60 years, on a readiness to tackle the unusual or the unheard of—to transform yesterday's impracticabilities and turn them into the windows of tomorrow.

CRITTALL

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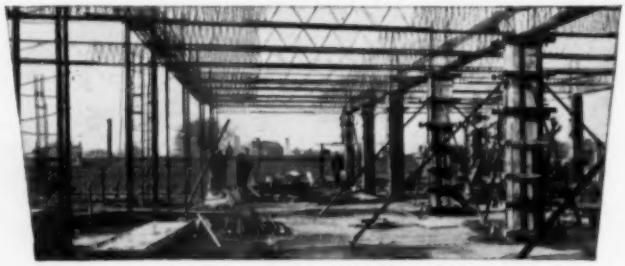
FOR CONCRETE REINFORCEMENT

use FRAMEWELD

Trade mark Regn : 589066

A REAL TIME AND MONEY SAVER

These pictures illustrate the extension to the existing factory of S. C. Johnson & Son Limited at West Drayton, Middlesex. The reinforced concrete frame was carried out in our patent FRAMEWELD system.



A copy of the FRAMEWELD handbook describing the system will be sent on request.

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544/2038

Closed, a BEACON *Metal Window is wind and weathertight*

When closed there is uniform all-round contact between the ventilator and the frame of a BEACON Metal Window. Without strain, it is tightly closed against wind and weather.

The *fit* of a BEACON Window is made perfect by pre-bedding the ventilators in their frame before they are hung. When ventilators and frame are mated, then, and not until then, are the hinges mounted on the frame; frame, ventilators and hinges are thus accurately and permanently aligned. Finally, the complete assembly must pass independent inspection as a final check on workmanship and finish.

There is nothing spectacular in this procedure, but it is sound engineering practice as applied to Metal Window making. If you know how, and with what care they are manufactured, you will have confidence in BEACON Metal Windows.

A ventilator being bedded into the outer frame. The leaf of the hinge is already attached to the ventilator; final assembly of the hinge and its attachment to the outer frame are completed only when the ventilator and the frame are perfectly aligned.

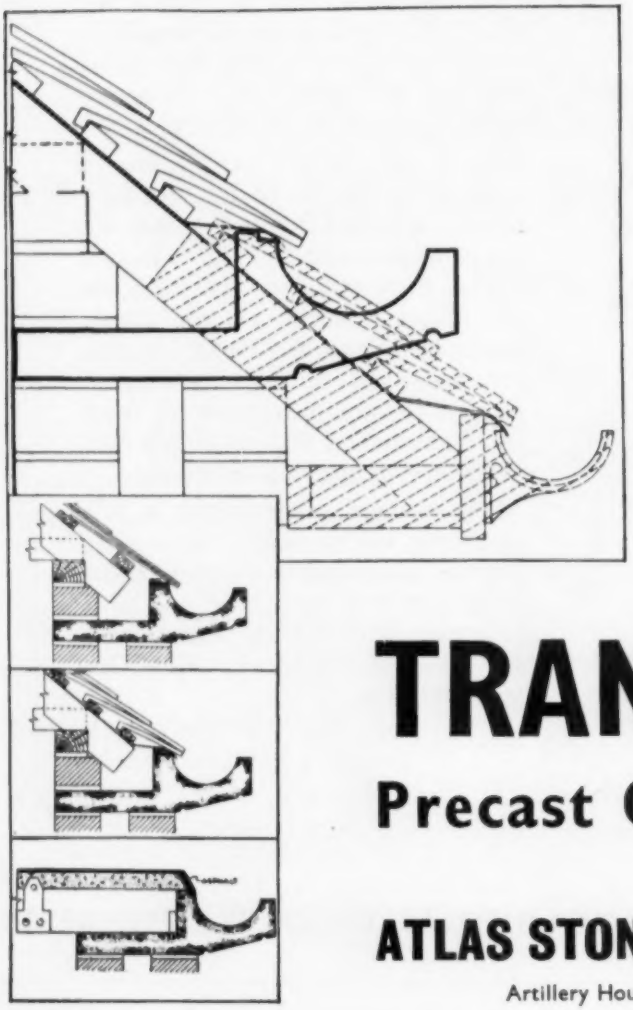
The alignment of all ventilators and frames is again checked during final inspection of workmanship and finish.

JOHN THOMPSON BEACON WINDOWS LIMITED · JOHN THOMPSON GROUP

JOHN THOMPSON BEACON WINDOWS LIMITED : WOLVERHAMPTON

Save over 10/- a yard on normal cost
Unique interlocking joint. No felt or bitumen necessary.
Each 2 ft. section sits on wall under own weight (which is only 90 lbs).

With the Transverco precast concrete gutter



The TRANSVERCO precast concrete gutter is a permanent, pleasing feature that effects a substantial saving on every house or building.

It is easily fixed and is lighter per foot run than any similar type of gutter.

The TRANSVERCO guttering is made from high grade, reinforced, waterproof concrete which requires no treatment or maintenance.

Stop-ends, outlets, angles and closers are available, and are included in the price per ft. run.

The diagrams on the left show :—

Top : Sectional view. The shaded portion shows saving over normal gutter.

Lower : Method of fitting Transverco guttering for slate, tile and flat roofs.

TRANSVERCO

Precast Concrete Gutter

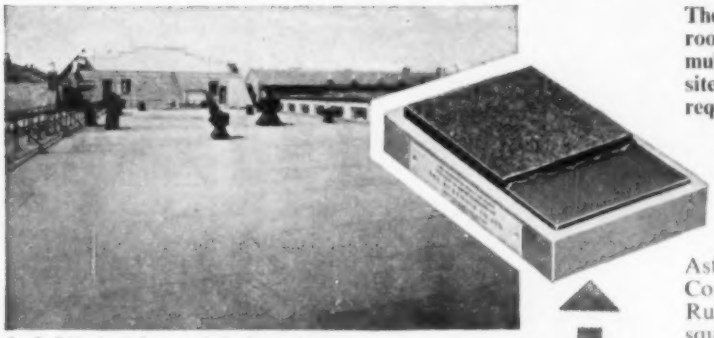
Full details from

ATLAS STONE COMPANY LIMITED

Artillery House, Artillery Row, London, S.W.1.

Standard Specifications for

RUBEROID *Built-up* ROOFS

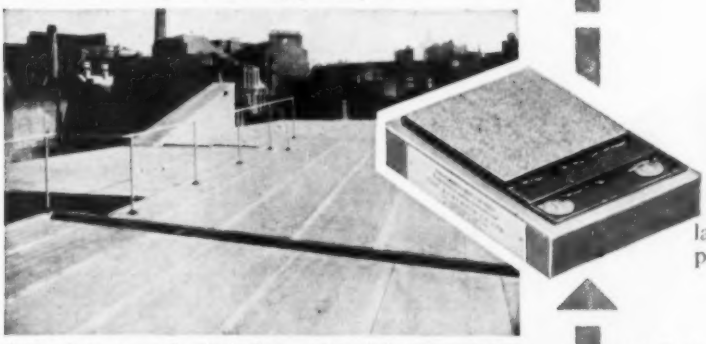


Roof of Marks & Spencer Ltd., Chester.
Architect : Norman Jones, Son & Rigby, Southport.

The Ruberoid Built-up Roof is a permanent roofing for buildings of every kind. It consists of multiple layers of Ruberoid bonded together on site with bitumen and surfaced according to the requirements of the building.

2-layers on concrete :
(Specification H.2)

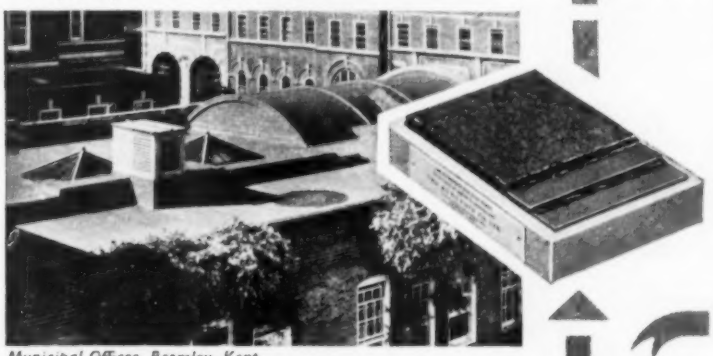
Astos Asbestos Underlay bonded with Ruberoid Compound and finished with Mineral Surfaced Ruberoid Roofing. Weight 139¼ lb. per 100 square feet.



Joinery Department for W. R. Crow and Son Ltd., London, E.C.1.
Building Surveyor : C. G. Eaglen & Son.

3-layers on boards :
(Specification D.4)

Two layers of Astos Asbestos Underlay bonded with Ruberoid Compound and finished with a layer of Astos Asbestos Roofing. Weight 157¼ lb. per 100 square feet.



Municipal Offices, Bromley, Kent.
Borough Engineer : H. Cliffe, B.Sc. (Eng.).

3-layers on concrete :
(Specification J.2)

Two layers of Astos Asbestos Felt bonded with Ruberoid Compound and surfaced with Ruberoid Mineral Surfaced Roofing. Weight 189¾ lb. per 100 square feet.

RUBEROID
Built-up **ROOFS**

THE RUBEROID CONTRACT DEPARTMENT UNDERTAKES WORK ON ANY SCALE IN ALL PARTS OF THE COUNTRY AT SHORT NOTICE.

Branches :
ABERDEEN · BELFAST · BIRMINGHAM · BRISTOL · EDINBURGH
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BUILT-UP ROOF MODELS

These models clearly show the construction of Ruberoid Built-up Roofs. They are available to Architects and Builders on request, together with brochure No. 326, "Standard Specifications for Ruberoid Roofs" which gives technical details as to weights, structures required, falls, flashings and detailed drawings.

R. 151

THE RUBEROID CO. LTD., 93, COMMONWEALTH HOUSE, NEW OXFORD STREET, LONDON, W.C.1

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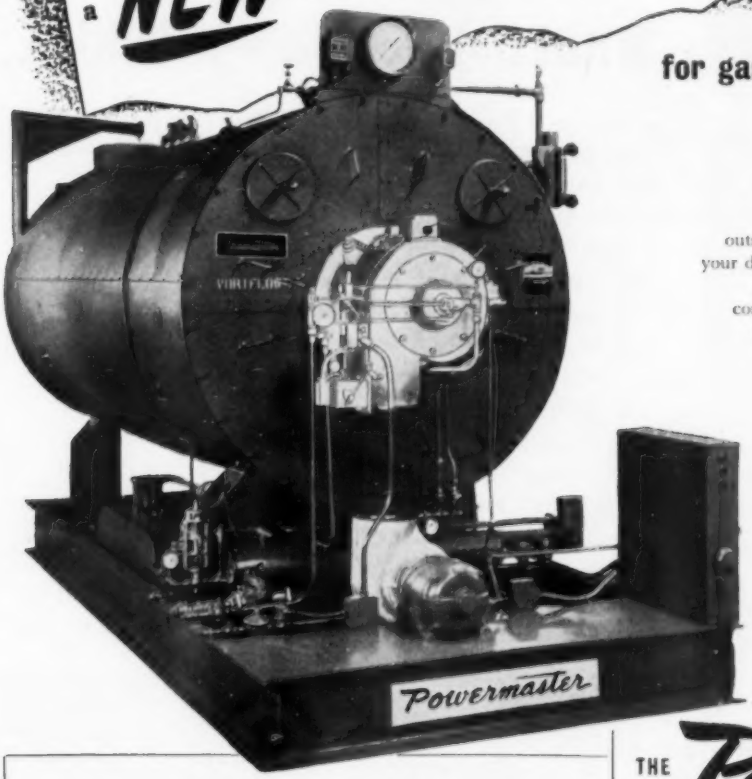
ILFORD

photographic materials in the service of industry

"Ready-to-use," higher efficiency, lower operating costs easier maintenance . . .

a NEW British made PACKAGED AUTOMATIC BOILER



for gas, oil or combined gas/oil firing

Wherever steam or hot water are required, the ' Powermaster ' Automatic Boiler offers outstanding advantages. It can be ' delivered to your door,' complete with all the necessary equipment and controls, ready for immediate connection. It requires no special steel or brick base. It gives efficient space heating without ' space eating.' Above all, it automatically ensures higher operating efficiency, saves fuel and labour, is clean and smokeless. For full details and specifications of the ' Powermaster,' developed on a proved American-type packaged automatic boiler and now built in this country by ' G.W.B.', write or telephone the address below.

THE Powermaster

SOME COST AND LABOUR-SAVING FEATURES

Simplified installation—no special foundation is required, no costly steel or brick stack.

Reduces fuel costs—high operating efficiency and a special air atomising burner system guarantees highest thermal efficiency, even when running at less than full capacity.

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Saves man-hours—automatic controls reduce attendant's time to a minimum.

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C

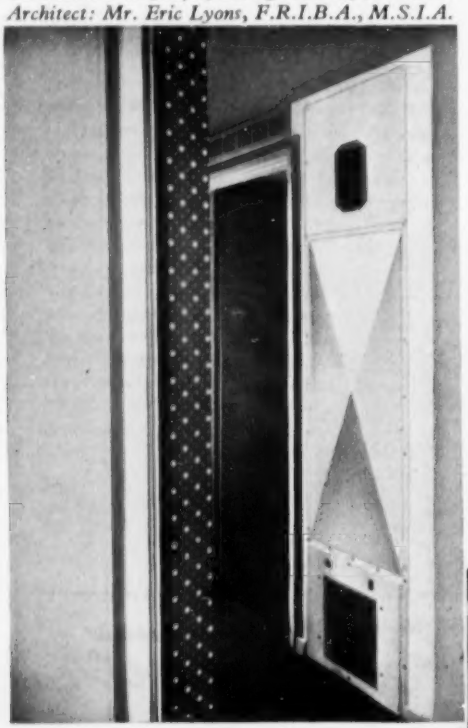
Cavendish Court, 11/14 Cardigan Road, Richmond. Architect: Mr. Eric Lyons, F.R.I.B.A., M.S.I.A.

New Richmond flats use Radiation SMOKELESS WHOLE-HOUSE WARMING

These new flats in Cardigan Road, Richmond, show how the architect has greater flexibility in planning when he specifies Radiation's economical and trouble-free system of Whole-house Warming.

The fully automatic gas-operated heating unit fits unobtrusively into a small insulated recess. Ducted warm air is circulated throughout the flat and thermostatic control enables room temperatures to be regulated accurately to the needs of the day and hour. In summer the system may be used to cool the flat. The system operates at 3 to 4 times the efficiency of a normal open fire.

The same remarkable fuel economy is obtained from Radiation's oil-fired and solid fuel-burning units which operate at an efficiency of about 75%. The solid fuel unit incorporates a smoke-consuming down-draught furnace and a 40 gallon hot water cylinder. The oil-fired unit can be supplied with or without a hot water cylinder.



The insulated heating unit occupies very modest floor space in a small recess in the passage

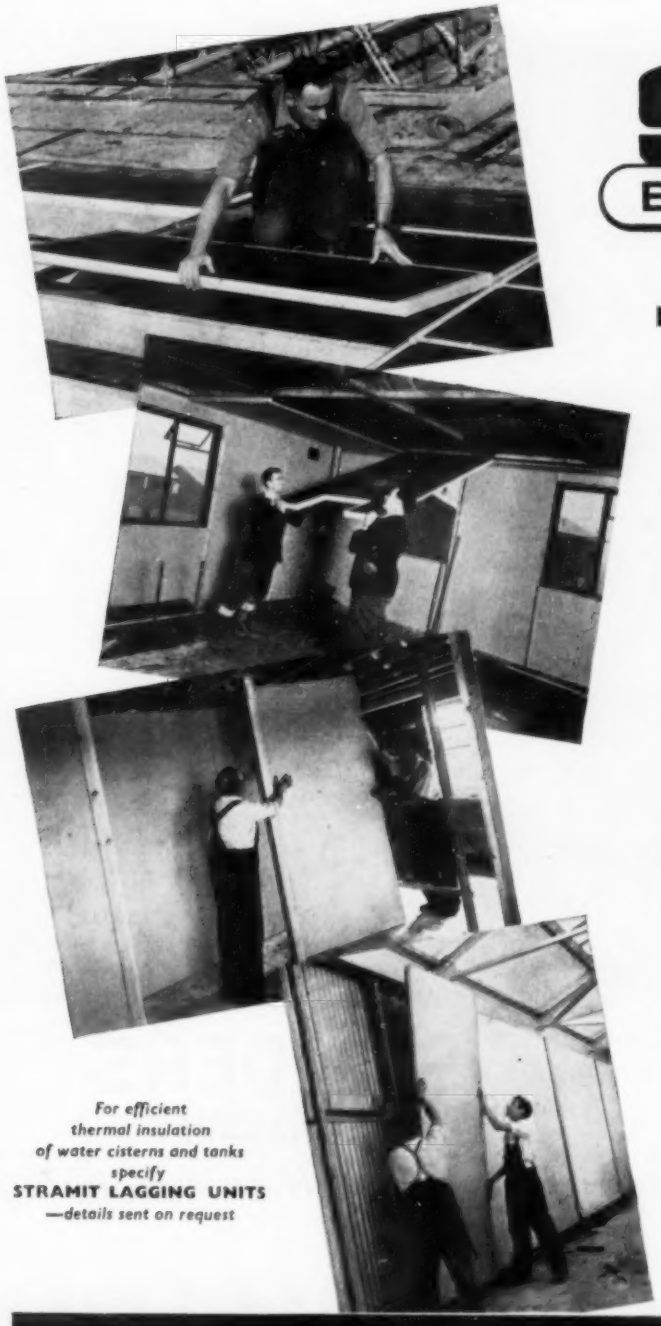
Warm air inlet register and high level return air grille, unobtrusive yet effective. The room thermostat controls temperature.

Pioneers in smokeless combustion

Radiation

RADIATION GROUP SALES LIMITED, LANCELOT WORKS, WEMBLEY, MIDDLESEX. *Tel: Wembley 6221*

8 reasons why more and more Architects are insisting on



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PARTITIONS & WALL-LININGS

1. **Low-cost dry construction**
2. **Pre-cut to size to save time on site and avoid cutting to waste**
3. **Light weight is combined with great strength and rigidity**
4. **Wall-framing is required at 4 ft. centres; roof-supports required at 4 ft. centres (pitched) and at 2 ft. centres (flat)**
5. **Surface is ready for immediate decoration No screeding is required on roof decks**
6. **Good fire-resistance classification**
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8. **Exceptionally high thermal insulation**

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A 13 Amp. Fused Plug

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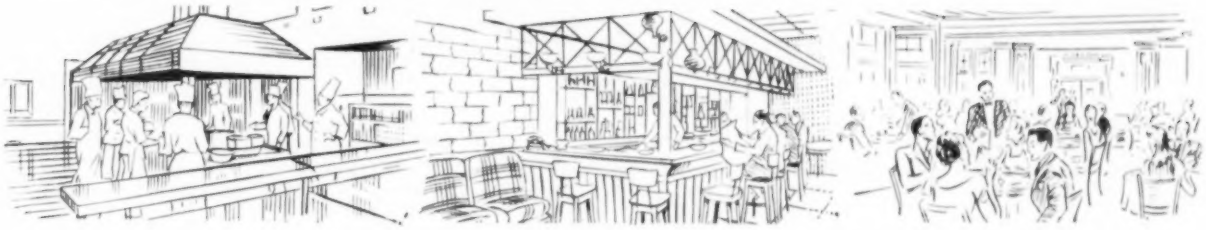
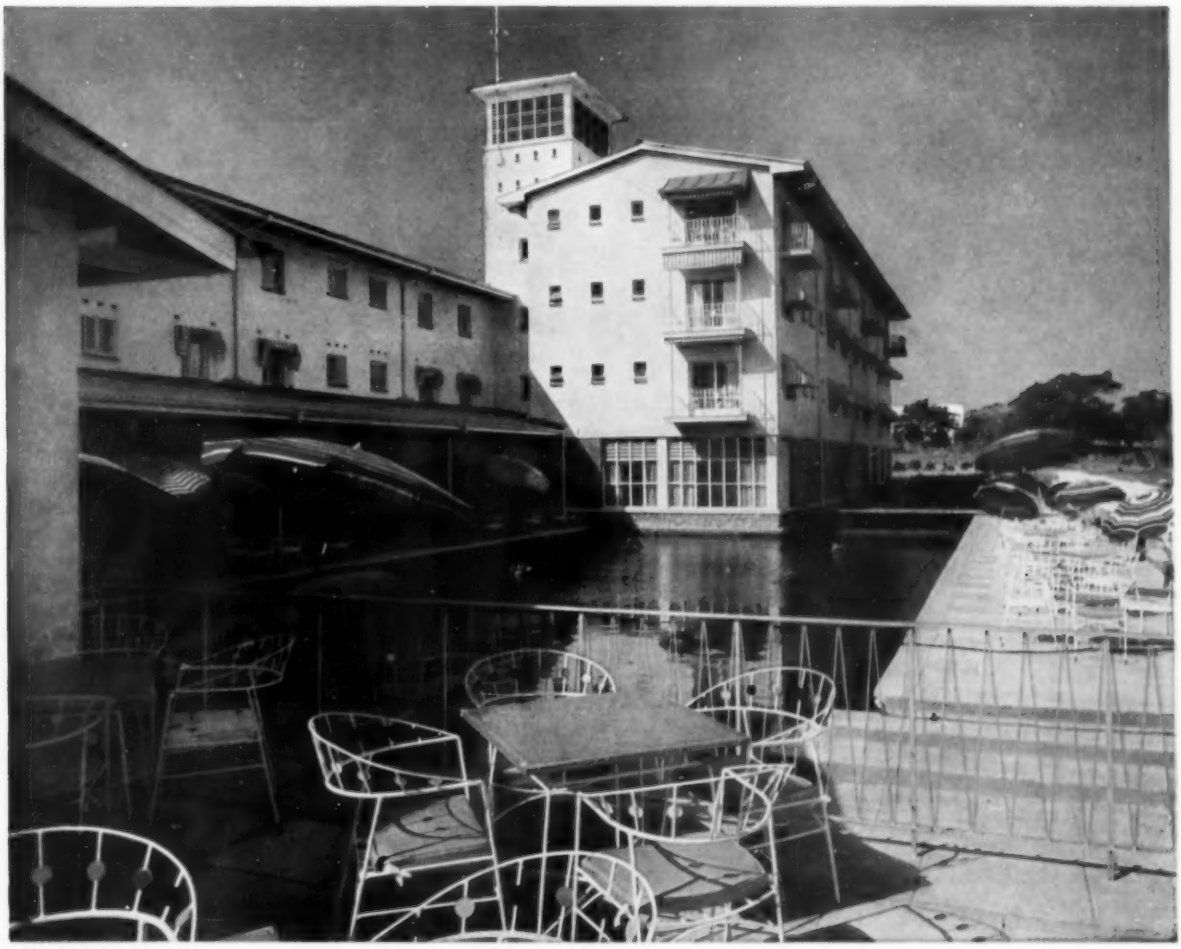


Building for the Industries of the World



HOTELS The Ridgeway Hotel, Lusaka

The site of the hotel, established on the low, tree clad spur, stands above the lower town in a flat plain that stretches 11 miles towards the more mountainous scenery of Scilanga, provides the most modern luxury hotel standards in close proximity to Lusaka Airport.

Architect: G. A. Jellicoe, F.R.I.B.A.

RICHARD **COSTAIN** LIMITED BUILDING & CIVIL ENGINEERING CONTRACTORS

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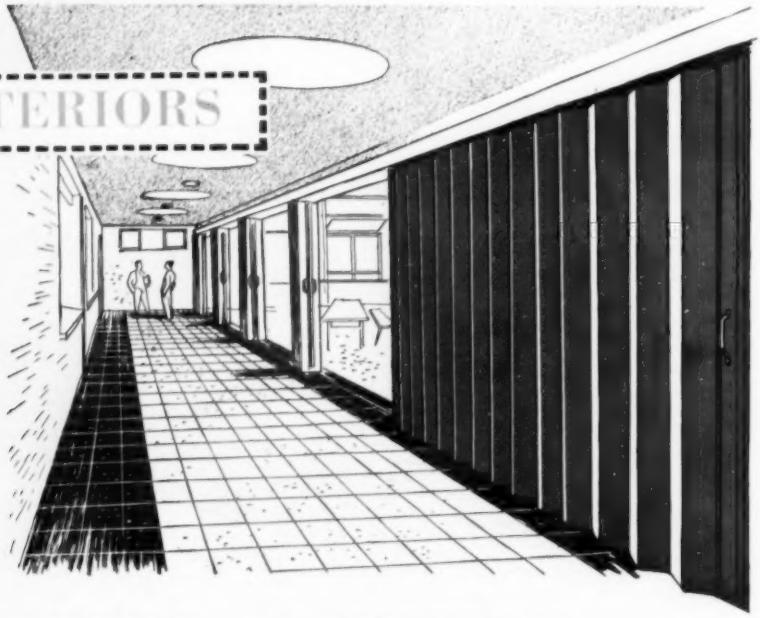
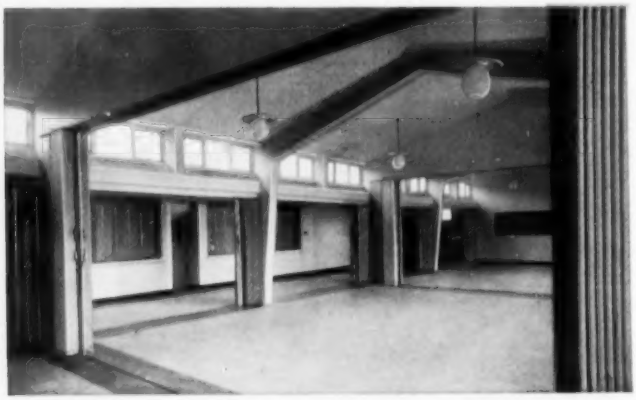
D

MODERN INTERIORS



demand the

MODERN FOLDING PARTITION



Bolton " Superfold " leathercloth covered collapsible partitions are robust and durable in construction, whilst being light and easy to handle. They offer smooth operation, attractive appearance, draught resistance and heat conservation, and the leathercloth covering, which is washable and readily interchangeable, can be supplied in a variety of shades to harmonise with any colour scheme.

Bolton " Superfold " partitions are fabricated from $\frac{5}{8}$" pickets together with suitable lattice bars. A special double-sided extruded aluminium alloy hinging strip is provided to accommodate the small section shutter plates which provide the internal support for the leathercloth. An overhead top track with ball bearing pulleys is fitted, and a single channel bottom track which can be eliminated if desired.

" Superfold " partitions are ideally suited for schools, hospitals, hotels, canteens, offices, ships, clubs, social centres, private houses, etc.

For further details send for our "Superfold" leaflet. We shall also be glad to send you, without obligation, a copy of our latest catalogue A.B. '54 which describes our complete range.

BOLTON COLLAPSIBLE
DOORS & GATES

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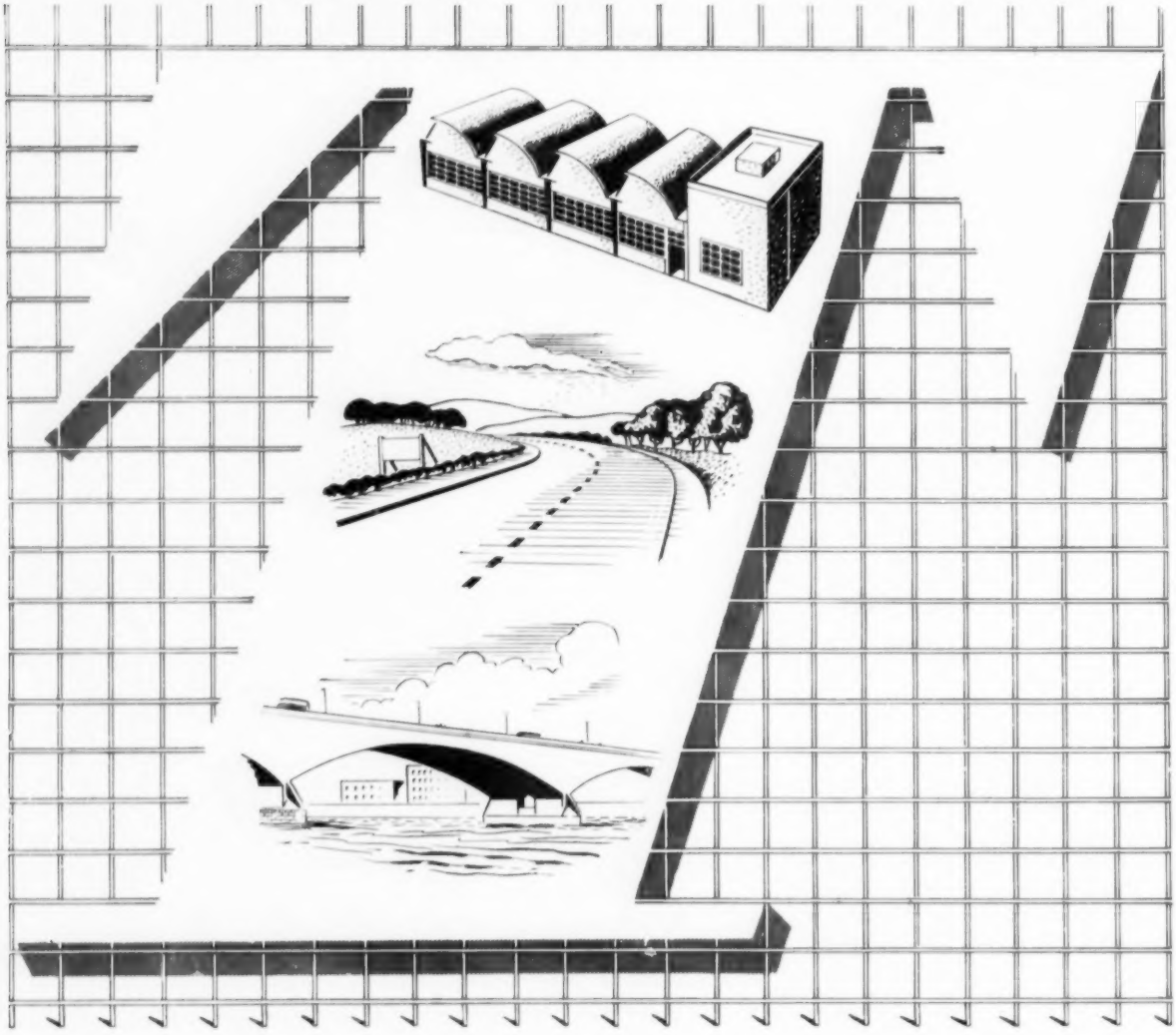

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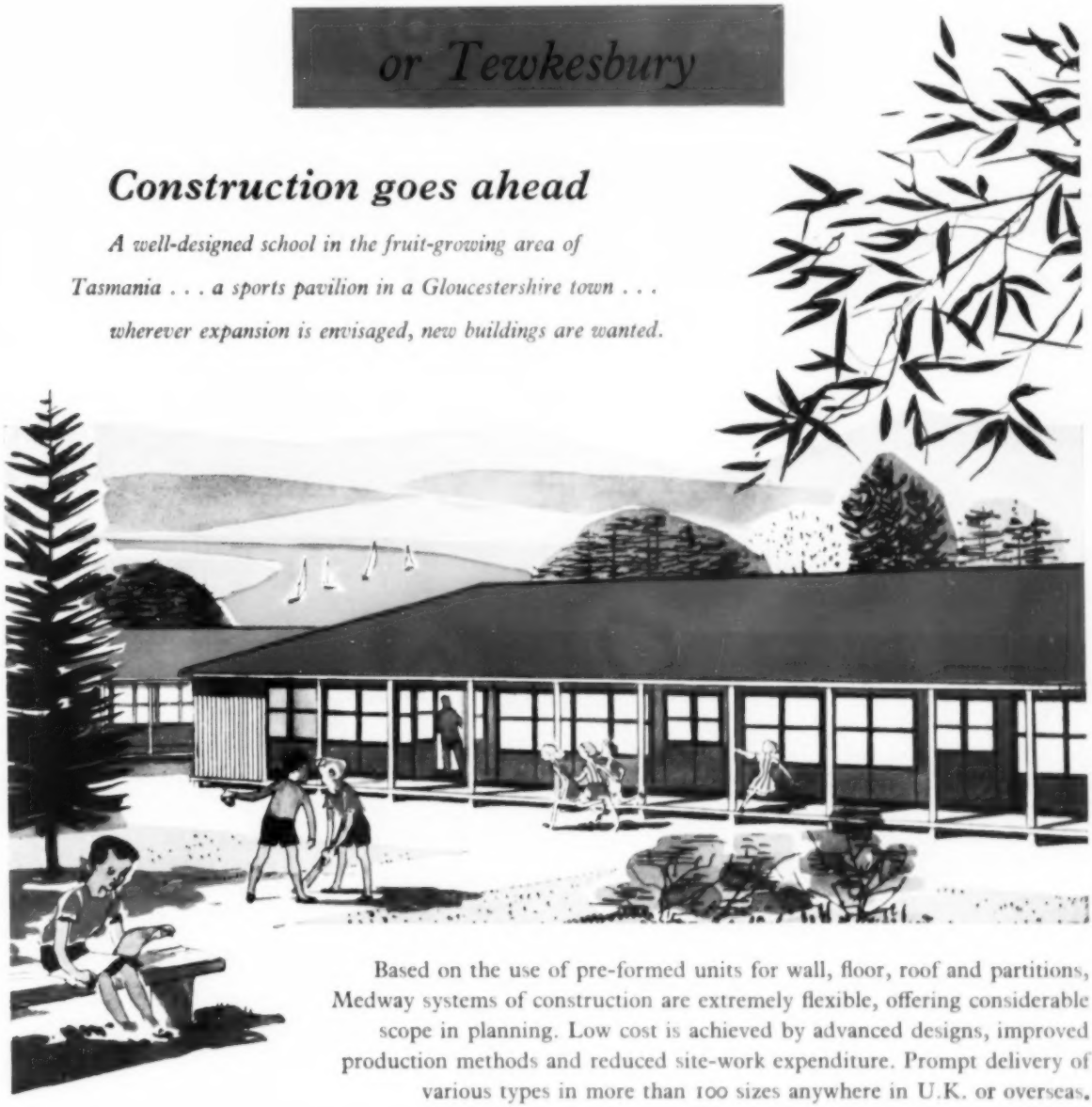

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Vol. 206 No. 10

THE ARCHITECT & BUILDING NEWS

2 September 1954

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A MATTER OF FORM

BRITAIN'S stock of houses is one of its most important assets. The number and adequacy of these houses, their condition and equipment, are all matters to which any modern government must pay close regard. Since the war interest in this field has centred mainly upon the construction of adequate numbers of new houses and flats. Now emphasis is starting to be laid upon the maintenance, improvement and conversion of our existing homes. To assist in this task is the object of the Housing and Rent Acts, 1954, which, after a somewhat windy passage through Parliament, reached the Statute Book on July 30, 1954.

The Act seeks to achieve its object in two ways. It aims to encourage and enable landlords to maintain their houses in good condition by allowing them to charge increased rents where they have actually effected repairs. It also seeks to secure the improvement and conversion of older houses by authorizing a revised and extended system of grants to those who undertake such work. These matters will interest and intimately concern architects and builders henceforward for the Act came into effect this week on August 30. An understanding of the provisions of this Act and some of the details of its operation will be invaluable to all those concerned with housing.

The provisions of the Act have been much criticized on the one hand as constituting a Landlords' Charter and on the other as being "too little too late." Now that the provisions of the Act can be more carefully studied both criticisms seem likely to be rather exaggerated. If landlords can in fact obtain the permitted increases a genuine impetus may be given to the maintenance of older houses, while the amount of such increases is unlikely to prove too onerous to most tenants or a golden egg to landlords. The grants for improvements are harder to judge but seem reasonable on the whole. The real criticism which is to be levelled at this Act is one which is all too frequent in our day and it is that its provisions are so complex that few can be found to understand them. Certainly Ministers and Members of Parliament are not usually among the latter. No doubt conscious that here lies the real trouble the Ministry of Housing, together with the Central Office of Information, has prepared two small guides to this new legal maze which are available from H.M.S.O. at 4d. each.*

The first booklet sets out in the form of Questions and Answers, illustrated by examples and tables, the rights and obligations of landlords and tenants in regard to rent increases. The second, cast in the same form, illustrates the terms and conditions under which grants for improvement and conversions can be claimed. These two booklets are clear and useful and they are to be welcomed, but a word of caution; they give only a very small part of the story. They tend also to disguise the complexity of procedure which will be involved.

To problems raised by the Act we shall return later when we publish articles dealing with them. Meanwhile these booklets will repay careful reading, particularly if they are read in conjunction with the forms prescribed by the Act. However, it is when these forms are scanned that most people will realize how unwise they would be to act upon the guidance provided by these booklets alone. For the moment readers concerned with such matters would be well advised, having read these guides to have a look at the various all-important definitions which the Act provides. They may well feel that they need not only a lawyer permanently at their side but a mathematician as well.

Whether the Act will achieve its object must remain to be seen, if the rents increases and grants can be obtained by those who want and need them they should be very useful, and the Act ensures that they will be properly used. Those who peruse the Act, Regulations and forms may be pardoned if they suspect that the success of the whole measure will turn less on merit and sense and more on mastering a thousand intricacies of form.

* "The New Act—Repairs and Rents," and "Grants for Improvements and Conversions."

Newly completed residential block for faculty staff and students, Illinois Institute of Technology, Chicago.

Memorial Chapel, I.I.T. The altar is a 7½-ton block of Travertine and the altar rails and cross are of stainless steel.

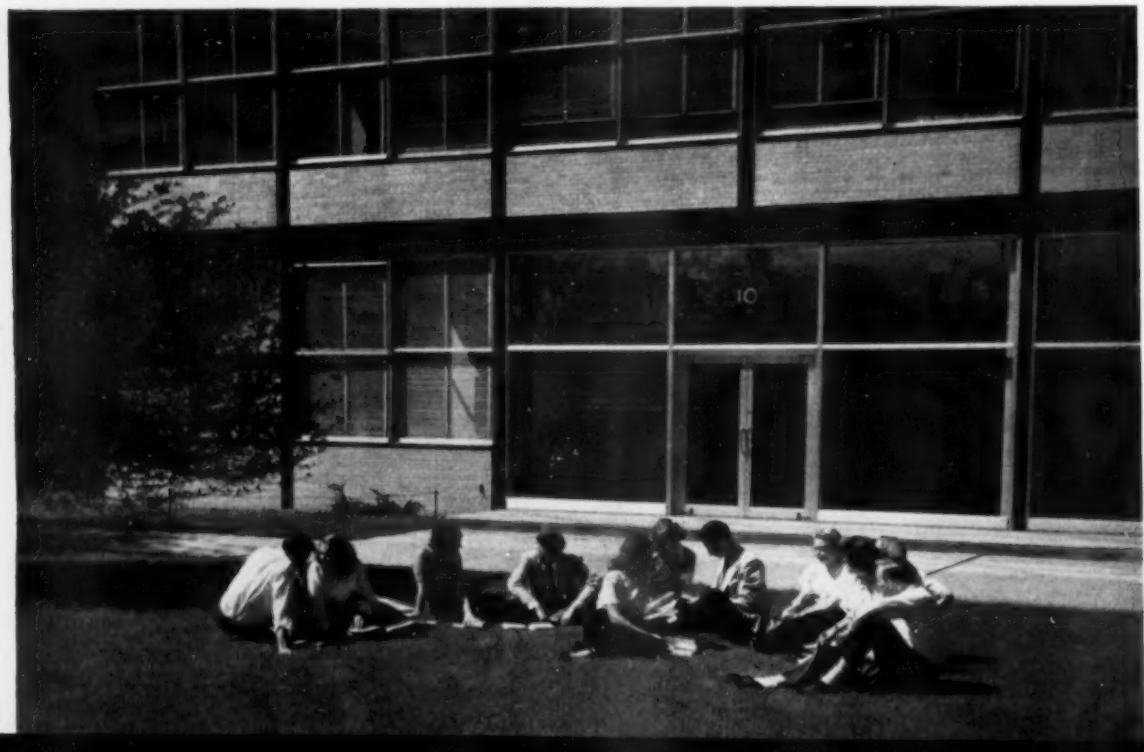
EVENTS AND COMMENTS

MORE AND MORE OF LESS AND LESS

You will remember the recent picture of a model of the new Mies block for Architecture, Design and City Planning on the I.I.T. Campus, with flat concrete roof supported from external steel beams. The pictures on these pages recapitulate van der Rohe's earlier work as Dean of Architecture at Illinois Tech. In 1940 he designed a new campus on a 12- and 24-foot grid, including open space, so that any future extensions could drop into the pattern. Ten buildings are completed and there are said to be 14 to come. Is this a record?

LENS SCOTUS

Although no Scotsman myself, I had a sympathetic shudder of horror when I read in my paper that at the recent Highland Games an *American* had tossed the caber farther than any of the local strong boys. They will now have to think of some other sport that only Scotsmen will want to take up (pulling up street lighting standards by the roots?).



Entrance of the Metallurgical and Chemical Engineering block, I.I.T.

For the Edinburgh Festival, the Saltire Society included in its exhibition of Early Victorian Scottish Photographs a number of views of old Edinburgh taken in 1854, '55, by Dr. Thomas Keith. I don't know whether Architecture, apart from floodlighting, had any other place in the Festival programme.

At the earlier photographic exhibition this year, organized by the Edinburgh A.A. and shown in the rooms of the R.I.A.S. in Rutland Square, the chairman of the Associate and Student Section said that exhibitors had found nothing to inspire them in "our rather stark modern buildings," a fact that he considered to be a slap in the face for contemporary architects. I would not have thought they cared a hoot. In the deep south we think contemporary architecture is too photogenic for words. Before I leave the camera I must urge you to buy or borrow the new Thames and Hudson book.

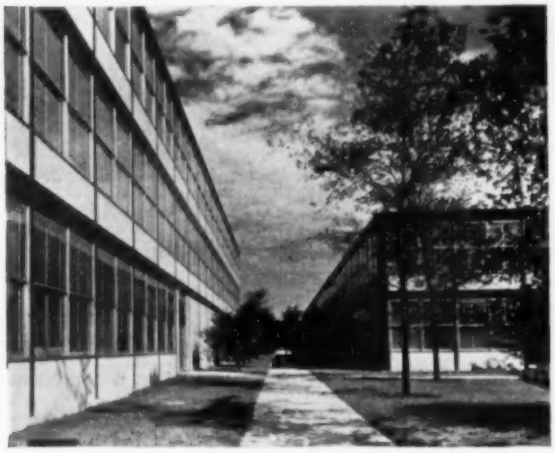
ENGLISH COTTAGES AND FARM-HOUSES

This is as good, if not better, than Edwin Smith's previous book of Parish Churches. There is a rather old-fashioned look about his photographs in the very best sense that there are no tricks or overtones; you can look into them in the most satisfying 3D way and delight in the nostalgic detail whether it is mantelpiece bric-a-brac, delicate creeper, or grain of the building materials.

The book is not only a fine record of vernacular building, much of which is disappearing, it contains also much that is fertilizing for contemporary design. Note the fine, strong pattern of honeycomb brick wall of Mottram St. Andrew, Cheshire, and the clay-tile armour of the Biddenden cottage illustrated overleaf. One or two of these prints, for instance Parham, Suffolk, have an "impressionist" beauty of sky and trees which has been caught and recorded by an eye which has a rare recognition of this quality. In the print of the famous barn at Great Coxwell, the head lamps of a lorry shine balefully from within the dark cavern of its entrance—a portent I am afraid. To quote from the introduction by Miss Olive Cook, whose book on Cambridgeshire I remember admiring.

> "Barns are not only standing idle or put to alien uses: often the structure itself has been altered in a more drastic manner by the substitution of a corrugated iron for a thatched roof or by the conversion of the interior. The openings of old barns, though they were fashioned to admit a laden farm wagon, are frequently not large enough to allow the passage of the monster machines of to-day. In barns at Hampstead Marshall, Leaden Roding, Southrop, Great Gansden and Abney, amongst many others, medieval porches have given way to enlarged entrances, sometimes with modern sliding doors of nondescript wood painted sticky brown."

Apart from a long introduction Miss Cook had the difficult task of writing the notes. There is a useful geological map and drawings of "cruck" and "post and truss" construction. The end papers are maps showing the situation of the subjects which have been taken from 32 counties. Of course, there are hundreds more one would like to have seen included (I miss a row of terrace-cottages with lush gardens in front which is only one minute's walk from the Middlesex Sessions House in Southwark). I should also have liked to see included in the bibliography "Village Homes of England," by Sydney R. Jones. (The Studio, 1912.) I advocate making use of Mr. Smith's talent to complete the National Record Photographic Library whenever it falls short of a high standard.



Left: Chemistry building and Metallurgical and Chemical Engineering block (right of picture). Right: Another view of the Metallurgical and Chemical Engineering block, I.I.T. Completed in 1947.

THE PEACE DISTRICT

My compliments to D. B. Peace, A.R.I.B.A., A.M.T.P.I., and C. Finlow for their "Historic Buildings Map of the Peak District and Sherwood Forest" (Architectural Maps, 3s 6d). This, like the Cottage and Farm book mentioned above, reminds us of the inexhaustible architecture of this country. It is a tricky thing to draw buildings of all sizes and styles on spaces of about half an inch by a quarter so that they are recognizable. Mr. Peace has done very well indeed, and has got in 450 buildings in this one map. There are brief and useful notes on the back. In vigorous old age I hope to go round this area, map in hand, on my powered tricycle, which is I think the only form of transport, apart from the helicopter, to see buildings from. Bicycles need so much propelling, cars go by so fast.

GIVE THEM THE PALM

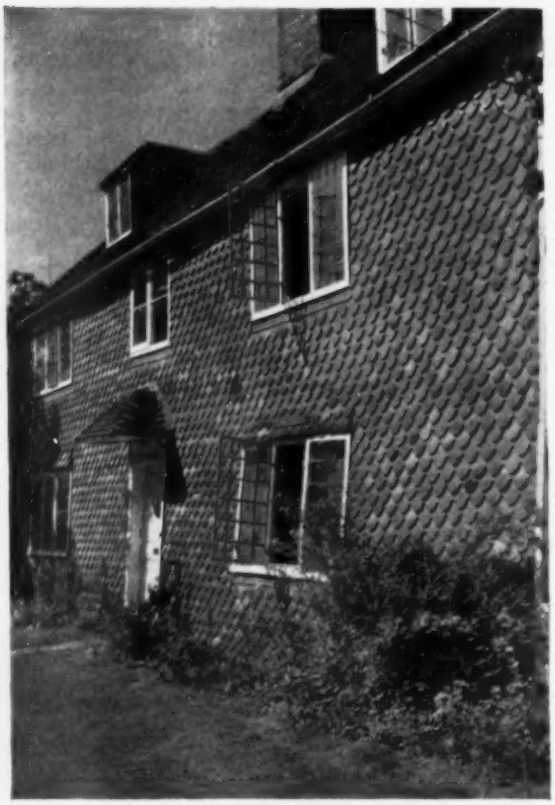
The Palm House at Kew has now been closed to visitors for nearly two years while M.o.W. ponders whether to reconstruct to Decimus Burton's design or put the palms underneath the arches that graced the Mall for the Coronation. Why not abandon both alternatives and have a competition limited to students, with Mr. Ove Arup, say, as assessor? There may be a Secundus Paxton behind one of those beards, Sir David.

GAIETY BOYS

The competition of the year is undoubtedly going to be the British Electric Group's limited contest for their new building on the site of the old Gaiety Theatre. This will be a battle of giants indeed; they might almost be divided into two teams to compete against each other in producing one modern *versus* one neo-Georgian solution. Goodness knows how we will be able to get all the designs in one issue when the result is known, for everyone will want to see *all* the designs, not merely the first three. Ink them in, boys, so that they will reproduce well. Whoever wins, the result will set a high standard for the rest of the square that the L.C.C. is to form on this site. Incidentally, I hope the L.C.C. has noticed a painted representation of a proposed new building right on its own doorstep to be called "Festival House." I have always been told that foxes never eat the rabbits close to their own earths.

A. N. OTHER

* * *



Biddenden, Kent. Reproduced from "English Cottages and Farm Buildings", published by Thames and Hudson, 42s. (see comment on previous page).

NEWS OF THE WEEK

Buildings of Special Architectural and Historic Interest, New Committee Members

Mr. Harold Macmillan, Minister of Housing and Local Government, has appointed three new members to the Committee which advises him on matters concerning buildings of special architectural and historic interest. Prof. Sir William Holford is chairman of the Committee and the new members are Lord Euston, Mr. J. D. K. Lloyd and Mr. W. A. Eden.

Lord Euston is deputy chairman of the Society for the Protection of Ancient Buildings and is a member of the Historic Buildings Council for England.

Mr. Lloyd was secretary of the Council for the Preservation of Rural Wales for many years and is now a member of the Historic Buildings Council for Wales.

W. A. Eden, F.R.I.B.A., F.S.A., is architect in charge of the Historic Buildings Section of the London County Council and is a lecturer in the history of architecture in England at University College, London.

Cars Under London Garages

On June 23, The Minister of Transport told the House that he had engaged Sir Owen Williams and Partners, Messrs. Bylander and Waddell, and Sir William Halcrow & Partners to prepare plans and estimates for garages under Grosvenor Square, Cavendish Square and Finsbury Square respectively (*A. & B.N.*, 1.7.54). He has since announced the names of the architects who will act as consultants. They are: Grosvenor Square: Messrs. Ellis, Clarke & Gallannaugh, F.F.R.I.B.A.; Cavendish Square: Messrs. Wornum & Playne, F.F.R.I.B.A.; and Finsbury Square: Messrs. Anderson, Forster & Wilcox, F.F.R.I.B.A.

A.A. Visit to Portsmouth

There will be a visit of the Architectural Association to Portsmouth on Saturday, September 25, 1954, to inspect eighteenth century and other buildings in the Dockyard, and also H.M.S. *Victory* and the Victory Museum. Members of the local chapter of the Hants and Isle of Wight A.A. will join the party.

The party will travel to Portsmouth by train from Waterloo Station at 10.50 a.m. and arrive back there at 7 p.m. The cost, to include rail tickets (3rd class), lunch and tea will be 30s.

Application for tickets should be made as soon as possible.

H.M. Dockyard Authorities require that the members of the party shall be British subjects.

C.O.I.D. Ideal Home Exhibits

The Council of Industrial Design is furnishing a show house at the Ulster Ideal Home Exhibition which opened on September 1.

The furniture and colour schemes have been selected for the C.O.I.D. by Mr. Jo Pattrick, and the house will conform to specificates of the North of Ireland Government, for subsidized houses.

At the Midlands Ideal Home Exhibition the C.O.I.D. will furnish a timber bungalow built by Grosvenor Workman (Saw Mills), Ltd., of Birmingham. Mrs. Eileen Bell will choose the furniture and colour schemes.

APPOINTMENT

Mr. Donald Leslie Ward, A.R.I.B.A., has been appointed to the post of Lecturer in Architecture at the Nigerian College of Arts, Science & Technology. Mr. Ward was, until recently, Senior Assistant and Lecturer in the Department of Architecture, Surveying and Building at the Municipal College, Southend-on-Sea.

CORRECTION

Mr. Hugh C. Connell, B.Sc. (Arch.) (Glas.), A.R.I.B.A., of Leeds, has been appointed Deputy Borough Architect, Borough of Camberwell, not chief assistant architect as stated in last week's issue.

York Guild of Building Formed

A Guild of Building is being formed in the City of York. The Guild is intended to bring together all those concerned in the building industry in York. There have been guilds going back into the centuries which dealt with particular crafts, such as the mason's and carpenter's guilds, but the revival of one of these old guilds was not considered an appropriate method of bringing together the many occupations who, working as a team, bring into being new buildings under modern conditions.

The full title of the new Guild is The York Guild of Building and it has as its objects the advancement of design, management, science, and craft in building and the encouragement of a better understanding of the problems and achievements of those engaged in building.

These objects will be furthered by a suitable annual programme of lectures, visits, debates and social functions, competitions, the issue of publications and any other activities which may from time to time be considered to be desirable.

The decision to form the Guild was taken at a meeting held on 4th February last, which was attended by York members of the Royal Institute of British Architects, the York Building Trades Employers' Association, the National Federation of Building Trades Operatives, and the York Members of the Quantity Surveying profession.

Few similar guilds exist at present, Hull and Doncaster being the only other guilds in North-East England.

The meeting had the benefit of the presence of the President and other officers of the Hull Guild of Building to address the meeting and give valuable information and advice on the formation of such a guild.

Following a general discussion it was decided unanimously that a guild should be formed in York so that all those engaged in building should have an opportunity of meeting regularly and exchanging views.

A committee was formed consisting of Messrs. E. Firth and C. Rowntree, representing the architects; Messrs. P. M. Shepherd and A. E. Sorrell, representing the employers; Messrs. G. Westerman and J. Wilson, representing the operatives; and Messrs. D. B. Holman and L. Whiteman, representing the quantity surveyors. Mr. G. Dickinson, the Head of the Building Department at the Technical College, was also made a member of the Committee, and at the first meeting of the Committee, Mr. David Leckenby was invited to become Honorary Secretary. The other officers who have been appointed are: President, Mr. P. M. Shepherd; Vice-President, Mr. C. Rowntree; Honorary Treasurer, Mr. D. B. Holman.

Many meetings have been held and the Committee have taken great care to ensure that the Guild shall be soundly established so that not only can it make a good beginning, but it will also endure. The ground work which has been completed includes a full constitution and a programme for the coming winter.

The inaugural meeting, which will be limited to Guild Members and official guests, will be held at St. William's College on Wednesday, October 27, at 7.30 p.m. Many well-known local persons will be present, including members of other guilds in the city. The principal speaker will be Mr. Woodbine Parish of London, who is a national figure in the building industry. He is particularly interested and active in the field of education in the building industry. The meeting will be followed by light refreshments.

An interesting winter programme has been arranged. This includes a film show of British and foreign films connected with building, a talk on building in the U.S.A., a dance at the Assembly Rooms, which it is hoped will become an annual function, and a "Brains Trust" to which the public will be invited. A number of visits to works and places of interest will be arranged during the summer and on other suitable occasions. Meetings, except functions such as the annual dance and the annual dinner, will be free to members.

Membership is open to all of 17 years and over who are directly connected with the design, management, science or craft of building and are resident, or normally employed in York and district. All who are members at the date of the inaugural meeting will be regarded as founder members.

The subscriptions are very reasonable, being 7s 6d for members aged 21 and over, 5s for those aged 18 to 20 inclusive and those aged 17 being free. Members may become Life Members for the sum of £7 7s, which will relieve them of any liability for future subscription.

Applications for membership are now being invited from those eligible and application forms and further details may be obtained from the Honorary Secretary, Mr. David Leckenby, Dip.Arch., A.R.I.B.A., 13, Lendal, York, or any member of the Guild Council.

University of London Department of Extra-mural Studies

A course of twelve weekly extension lectures on The Structure and Utilization of Wood will be given at the Linnean Society Meeting Room, Burlington House, Piccadilly, W.1, on Mondays at 7 p.m. beginning September 27, 1954. The lecturers will be Professor F. W. Jane, D.Sc.; T. J. Price; D. J. B. White, Ph.D. F.L.S.; B. A. Jay, M.A., F.L.S.

The fee for the course of 12 lectures is 15s. Single lectures 2s. Applications for tickets of admission to the course should be addressed to the Cashier, University of London, Senate House, Malet Street, W.C.1, and marked "Extension Courses" on the cover. Tickets may also be obtained at the lecture room on the occasion of each lecture.

CORRESPONDENCE

Unsatisfied Client

To the Editor of A. & B. N.

SIR,—*Re* your note on the Speculative Builder on p. 175 of issue for August 12, may I state the case of a person of moderate means who has made a real effort over the better part of 40 working years to secure some of my earnings for a long-term future building enterprise, which I am not prepared to pass to the seductions of mere speculation. I read their alluring advertisements in the national press, but their blandishments meet with my cold stare. I find they offer new properties at what seem very reasonable terms judging by present-day prices: no road charges, no legal fees and even, in one case, £10 offered towards removal charges. What more could I want? And why hold off when I am beginning to feel that, as I am due to retire in four years' time, the question of finding a settled home is becoming more urgent. My circumstances necessitate me leaving my home with my job, as my tenancy terminates then. I must find a new home.

What do I want, and why do I consider that you fall down in failing to meet cases like my own? I have studied the *Architect* for many years, and with particular interest these last two or three years, but I have yet to find illustrated in your journal the very modest house or bungalow (preferably the latter) coming within range of my modest savings.

I have one daughter (now at University), shall require only two bedrooms with perhaps an adaptable boxroom, no garage needed as far as I can see, the usual offices, bathroom, all architect sponsored, with a minimum of painting within and without, of pleasing exterior. I can find approximately £2,000 or a little over without taking too much of my savings—and no speculative builder in the offing.

I ask why can't some of our young architects (and older ones, if they are so inclined) supply us with these modest requirements? Are there such and where does one contact them? We are not asking for the moon; our tastes are simple; we don't wish to cut a dash; the domicile must be easy to run, simple and inexpensive to maintain. Would it be possible for your journal to open up a new avenue of introduction for answering the points I have laid before you?

These adverts are tempting and I am very glad to have been given your warning and thank you for it. Now be constructive, please.

I am, etc.,
(Name supplied).

Westminster House at dusk.

Crown Copyright Reserved.

The U.K. High Commissioner's Residence, Colombo

designed in the Chief Architect's Division, Ministry of Works

THE Ministry of Works was asked to build an air-conditioned residence with facilities for entertaining on a large scale. The accommodation provided is as follows: *Ground Floor*—hall, lounge, dining room, study, kitchen quarters, plant room, and separate servants' compound. *First Floor*—private suite (bedroom, sitting room, sewing room, dressing room and two bathrooms), 4 guest bedrooms, maids room, 4 bathrooms, 2 dressing rooms, linen room and boxes.

The narrow site, approximately 1¼ acres in extent, has frontages on two roads and this in some measure dictated the "L" shape plan. The main front faces north-east, that to the garden south-west. The lounge, entrance hall and dining room are linked by glazed screens and glazed or folding partitions. These rooms can be thrown into one when big receptions are given. The large windows protected by verandahs help to give the open spacious quality essential in a fully air-conditioned house.

Construction and Materials

The house is a simple structure, part reinforced concrete and part load-bearing walls of local brick and rough-hewn stone. Natural stone is also used decoratively in panels. The structural floors and roof slab are reinforced concrete. The timber-framed roof is to a low pitch and covered with aluminium sheeting which has been treated to prevent undue glare. Certain basic building materials were available locally but in the main all items such as joinery (in termite resisting hardwood), floor and wall tiling, wrought ironwork, kitchen equipment, etc., were supplied from the United Kingdom.

Detail everywhere is simple, and internally the decorative effect has been achieved by carefully relating the design, colour and texture of the building fabric and the furnishings and furniture. In general the walls of the ground floor reception area are in shades of grey, and the ceilings in primrose and china blue with certain elements picked out in white. This provides a light, cool background of colour and surface for the brightly coloured curtains, fabrics and the specially designed furniture.

Leading from the hall is the main stair of reinforced concrete with hardwood treads, white terrazzo risers and a simple wrought-iron balustrade, the design of which is repeated around the open well of the hall.

Externally, with the exception of the natural stonework, the walls are rendered and finished a French grey with the window frames and decorative plaques applied to the entrance gable picked out in white.

Engineering Services

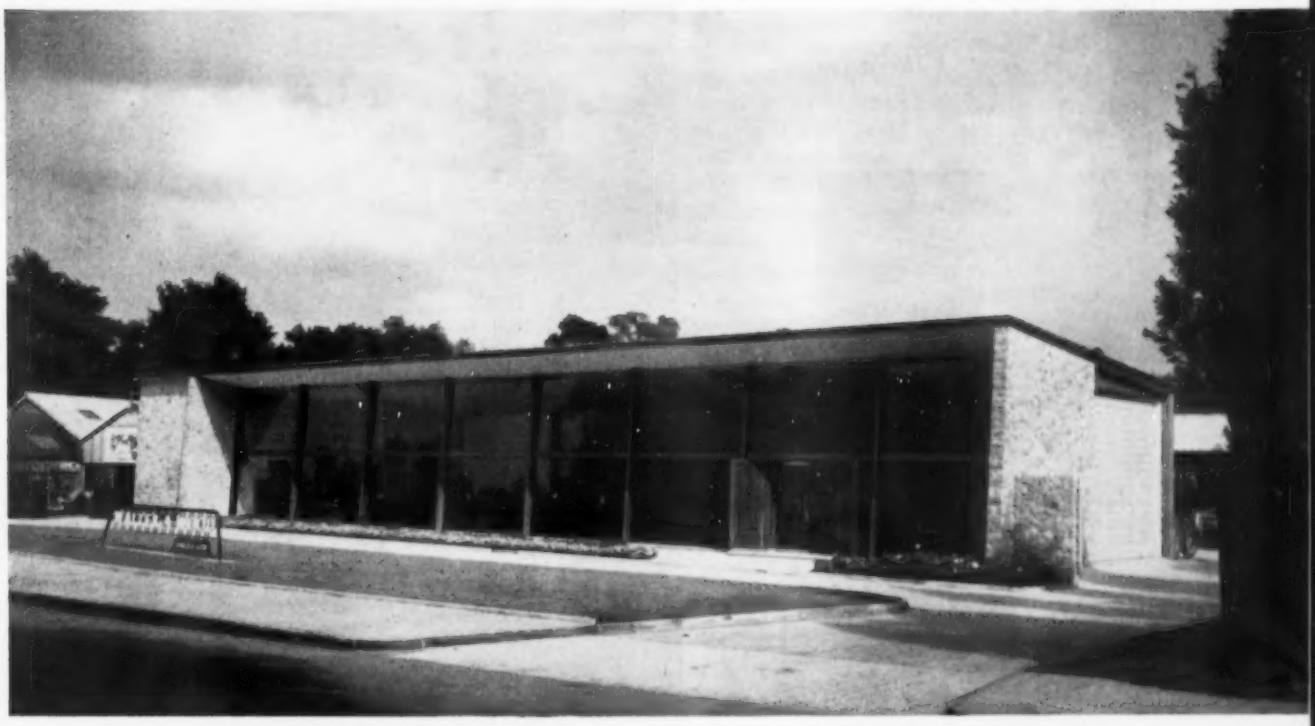
The air-conditioning plant provides 15 tons of refrigeration and is controlled to give a temperature of 75 deg. F., with a relative humidity of 50 per cent. The plant is fully automatic and is fitted with remote control. The residence is believed to be the first fully air-conditioned building in Colombo.

Contract Period

In the main the contract was carried out by direct labour under the supervision of a Clerk of Works sent out from the United Kingdom. Work on the site started in July, 1952, and the High Commissioner took up residence in March, 1954. Approximately seven weeks were lost owing to bad weather and heavy rains in the monsoon periods.

List of Contractors

Joinery Work: John Sadd & Sons, Ltd. *Balustrading:* Culford Art Metal Co. *Special Glass Work:* J. Hetley & Co., Ltd. *Sanitary Fittings:* Dent & Hellyer, Ltd. *Tiles:* Langley (London), Ltd., and Carter & Co., Ltd. *Wood Block Flooring:* Vigers, Ltd. *Paint:* Murray & Jones, Ltd.; R. Gay & Co.; Leyland Paint & Varnish Co.; Paripan, Ltd. *Electrical Installation and Air Conditioning:* United Kingdom Contractors were G. N. Haden & Sons and J. E. Hall, assisted locally by United Electricals, Ltd., and The Colombo Commercial Co., Ltd. *Furniture:* Scottish Furniture Manufacturers; Bath Cabinet Makers; Beresford & Hicks, London; Gordon Russell, London. *Carpets, Rugs:* Templeton of Glasgow. *Upholstery Curtain Materials:* Warners of London, and Edinburgh Weavers.



From the main road

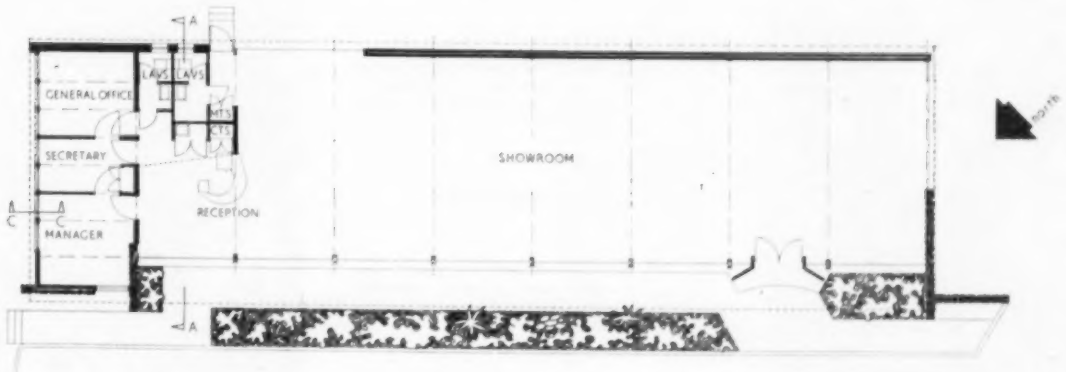
SHOWROOM AT HORSHAM for Walter A. Wood Ltd.

architect: LOUIS ERDI

THE problem was to provide showroom space for exhibiting outside agricultural machinery and some office accommodation on a reasonably level site, formerly a river bed. The site had been loose filled to about 12ft depth, and is bounded by the River Arun, but it is not a very prominent one for passing cars to take note of.

Town planning requirements were that an adjacent old mill of character should be preserved and the showroom should clash as little as possible with residential property in the locality.

The architect's solution is a long building lying well back from the road, with garden and prominent name sign in front. As much glass expanse as possible has been



PLAN

Showroom at Horsham

1

2

3

4

1. Armour plate entrance doors. Steel frames to windows are encased in Mahogany with the front face in Oak.

2. Inside the showroom is a display of agricultural machinery. The glass wall is sloped to avoid reflections.

3. The showroom front.

4. The reception desk has tongued and grooved boarded front in Oak and Formica plastic top.

Continued from p. 265.

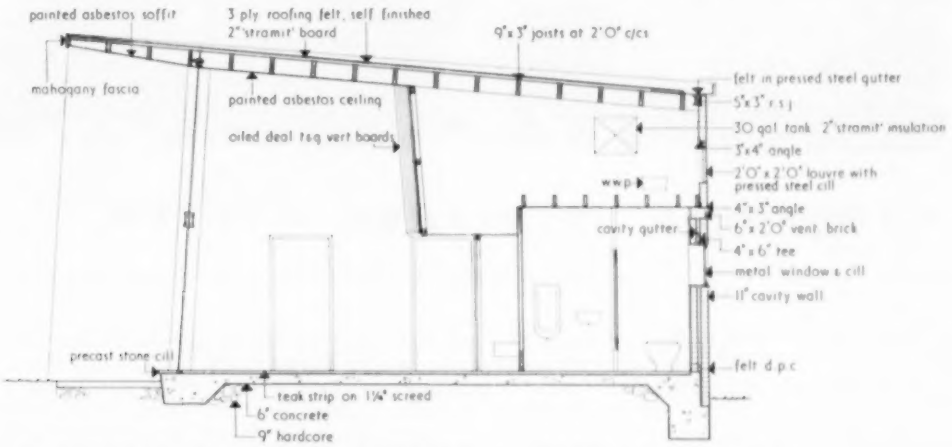
used in the construction which is generally in local materials. Glass to the front is sloped to cut out as much reflection as possible when viewed from car level.

Construction

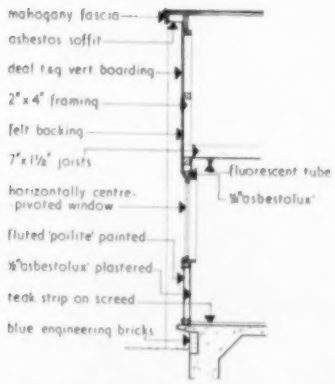
The 6in concrete floor slab is thickened to 18in under the long front windows; masonry walls have normal strip foundations. The structure is a welded steel portal frame with exposed stanchions and mullions on the front. The large windows in front are encased in hardwood. The roof is covered with Stramit with built-up felt roofing. Walls are variously 11in cavity brickwork, stone and timber studding. The north-east partition wall is faced with vertical pine weather boarding and fluted " Poilite " under windows; the inside face of the partition is plasterboard. Armour plate entrance doors to the front have handles shaped to represent a plough-tooth; the side wings are finished in wax polished oak strip. The vehicle doors at the south side of the showroom are " Weltilt " up-and-over aluminium type doors. Tubular electric heaters are used for heating in spun aluminium reflectors. The showroom floor is of teak strip. Emulsion paint has been used on painted surfaces.

The approximate cost excluding site and road works was £2 10s per foot super.

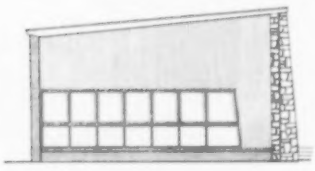
General Contractor: Fowler Bros. (Cowfold) Ltd.; the sign in front was executed by William Pickford Ltd.



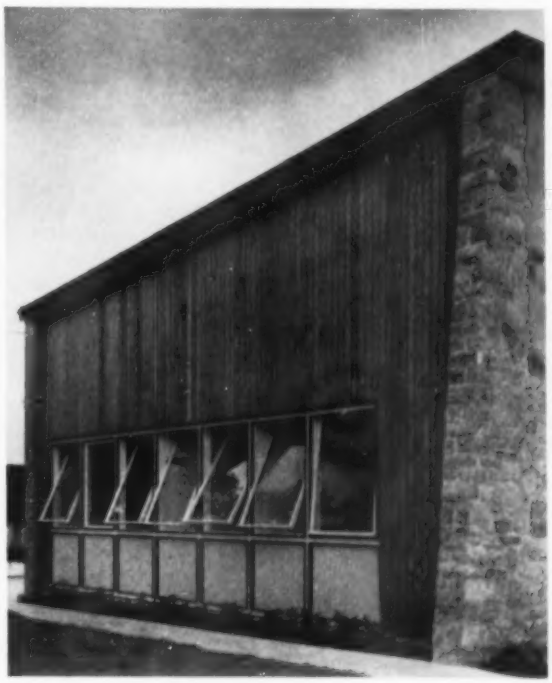
Cross-section through Showroom. Scale 1in = 8ft

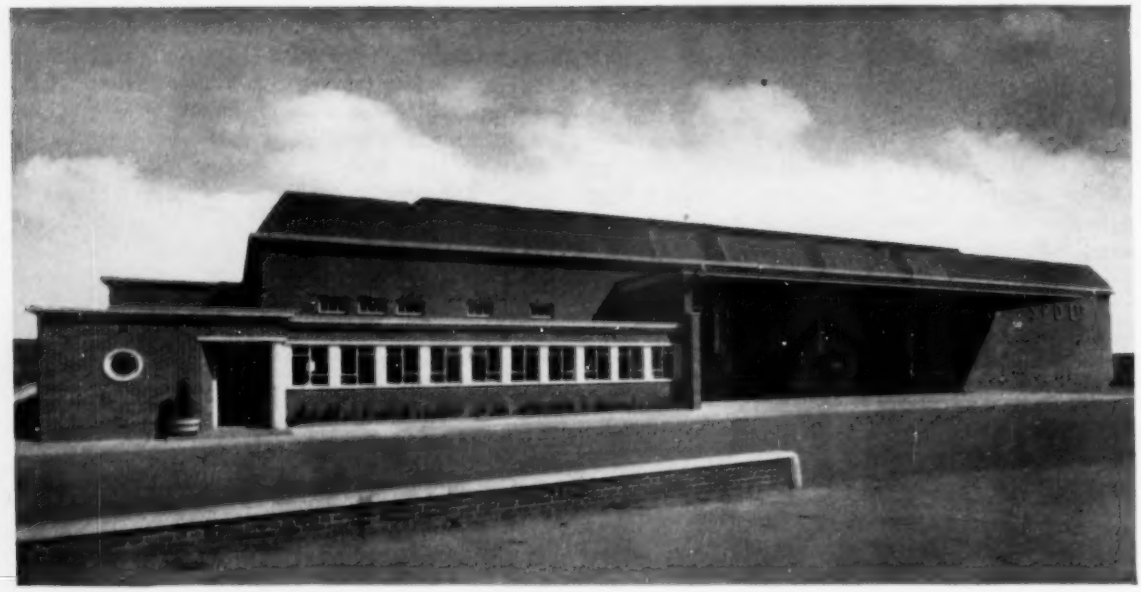


Section, North-East end



Elevation, North-East end





WAREHOUSE AT PINHOE, EXETER

ARCHITECTS : SNAILUM, HUGGINS & LE FEVRE, F./A./A.R.I.B.A., A.M.T.P.I., A.A.Dipl.

S.P.D., Ltd., the warehousing and distributing associate of Unilever, Ltd., are responsible for a wide range of Unilever products, and have prepared a nation-wide scheme for the construction of new distribution depots designed for their specialized requirements.

The warehouse at Pinhoe was constructed for and is leased to S.P.D., Ltd., by Messrs. Pye Storage, Ltd., and will cover the company's distribution in the area between Watchet, Taunton and Yeovil in the East and Hartland, Torrington, Moretonhampstead and Torquay in the West. The scheme for distribution is based on depots located at various centres throughout the United Kingdom chosen in relation to density of delivery requirements. In principle, the products are conveyed in bulk from the factories to the depots from which distribution to retailers and wholesalers is performed by road.

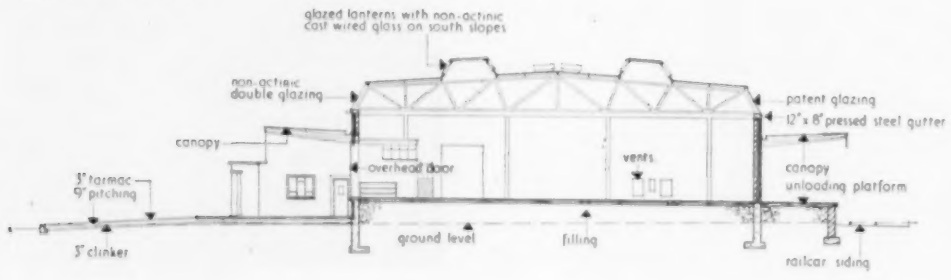
Goods arrive at the depot both by rail and road and the loaded pallets are then conveyed to the storage area by a pedestrian controlled battery operated pallet truck. They are then tiered to a height of approximately 16ft by a rider-controlled battery operated electric fork lift truck. Outgoing van loads are broken down from the tiers by the fork lift truck and the pallet loads transported to the load assembly area immediately adjacent to the outwards loading bank by the powered pallet truck. The delivery vans are then loaded by hand from the pallets with the use of roller conveyors.

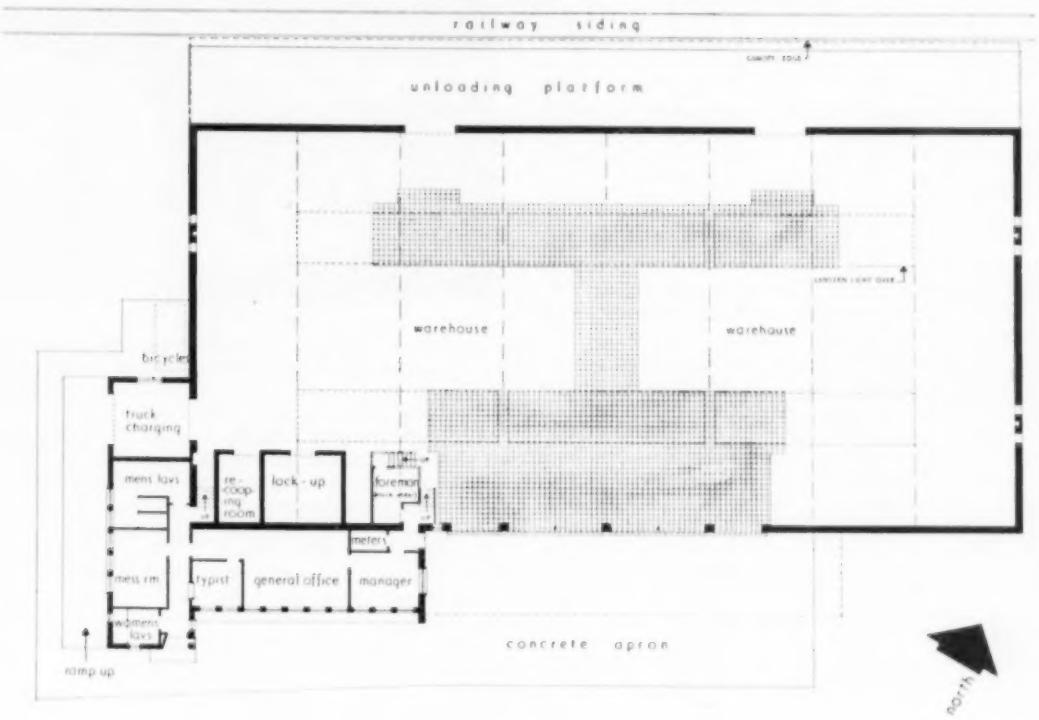
The depot is a self-contained administrative unit with offices for manager and clerical staff and a warehouse foreman's office adjacent to and overlooking the pre-assembly area. Cloakrooms and a messroom are provided for staff use. A security cage is provided in the warehouse for high value packages together with a perfumery for prepacking small items which are unsuitable for the unit load method of handling, and a room for recoopering of packages damaged during transit to the depot. A room containing rectifier equipments for charging the batteries of the power pallet truck and fork lift truck is approached either directly from the warehouse or externally by a ramp from the forecourt. This ramp also provides means of access for the fork lift truck to the depot forecourt for unloading palletized loads arriving by road.

The planning requirements are controlled by the size, shape, number and weight of the pallets and by the siting of gangways which must be of ample width to allow easy manœuvrability of the handling equipment.

The site, 3½ miles North-East of Exeter, is approached

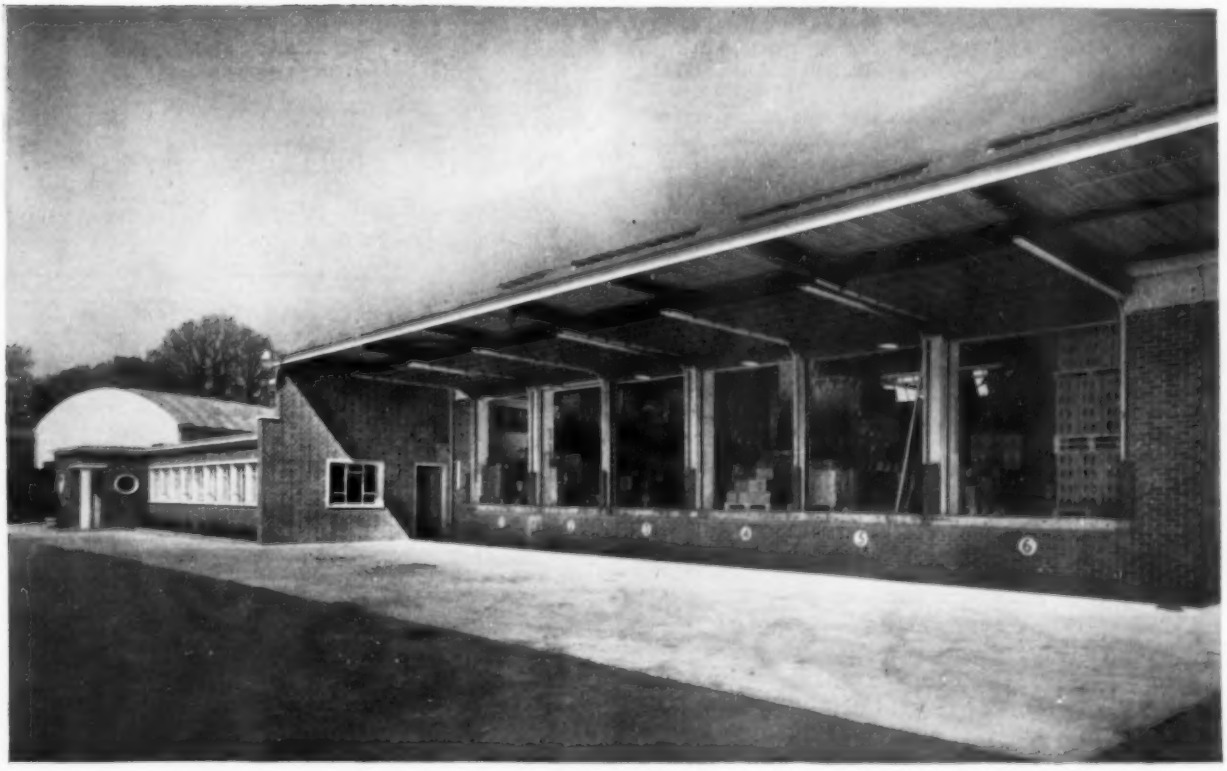
Scale: 1in = 32ft





Scale: 1in = 32ft

The unloading platform



from the Exeter-Taunton road by an existing estate service road which forms the South-East boundary of the plot. On the North-West the plot is bounded by the main London to Exeter railway line from which a new siding has been laid to serve the building The line and level of this new siding was dictated by the engineering requirements of the Railway Authorities and has, in turn, dictated the placing and level of the building, the long axis of which runs from North-East to South-West. A cross fall of approximately 6ft 6in from West to East of the site has involved a certain amount of filling on the road side of the warehouse to bring the forecourt up to the level required relative to the floor level of the warehouse

Rigid conditions were laid down by Messrs. Unilever for the construction of the building, the more important being as follows:—

1. The floor area must be clear of any obstruction and the floor must stand up to the load and wear imposed by the steel wheeled pallet trucks and be capable of a general load capacity of 7cwt per square foot.

2. The warehouse floor level to be 3ft 7in above rail level and 3ft 8in above forecourt level.

3. Clear height below roof trusses to be 17ft. Cantilevered canopies to be provided over the unloading platform and the loading bay for protection against solar heat and weather, with a clear height of 14ft 6in and cover of 16ft.

4. Thermal insulation and ventilation to be controlled within close limits.

5. The building to be set back from the estate road far enough to allow for a 60-ft forecourt to provide adequate room for manœuvring vehicles during loading and unloading operations.

The warehouse is steel framed with built-up stanchions contained within the external walls and steel trusses giving a clear span of 76ft 6in. The roof is of Ruberoid steel decking covered with insulation board and felt. The panel walls consist of an inner skin between the stanchions of 9in solid concrete block finished fair faced, and an outer skin of 4½in sandfaced brick. To enable the outer skin to clear the backs of the stanchions, the cavity between the two skins was increased to 4in in width, special wall ties being used throughout.

The building was originally designed with mass concrete stanchion bases and normal strip foundations to load bearing walls and panel walls. At the suggestion of Messrs. Unilever, this scheme was modified and the building has now been erected on a reinforced concrete ring beam 13in thick with a projecting toe to carry the outer wall skin, the ring beam also acting as a retaining wall for the hardcore filling below the warehouse floor. This floor is of 7in reinforced concrete with a 2in topping of granolithic laid monolithically with the structural slab. The granolithic topping is surface hardened and steel matting is laid in the trucking ways and the assembly area where maximum wear occurs from the "scrubbing" action of the steel-wheeled pallet trucks, which have a tricycle undercarriage and turn about one wheel.

Natural lighting to the warehouse is by patent glazing in the mansard slopes of the roof and similarly glazed lanterns over the main gangways, a total of approximately 12½ per cent of the roof area being glazed. All top lights facing South-East are double glazed with an upper layer of non-actinic glass and the lower layer in cast wired glass. The remainder of the glazing is in cast wired glass only.

The main warehouse doors are of the overhead type which slide up and outwards under the canopies. The Truck Charging Room is fitted with roller shutters which can be operated from either side.

The office block is located South-East of the warehouse and is of normal construction with 11in cavity walls faced in the same sandfaced brick as the warehouse with cast stone

dressings, and a flat roof of precast concrete beams with an insulating screed finished with natural asphalte. Floor finishes to the offices and entrance hall are in wood block, and to other rooms in quarry tiles.

The truck charging room is of similar construction to the office block with the exception of the floor, which is the same as that of the warehouse but with the addition of an acid-proof surface hardener in the topping. All paint-work in this room is also treated with special anti-sulphuric paint.

Heating of the office block is by electric panel and convector heaters. The warehouse is unheated, the maximum temperature required being 55 deg. F. Ventilation of the warehouse, which is completely non-mechanical, is achieved by carefully sited inlet and extract vents and is controllable to give up to three air changes per hour.

WAREHOUSE AT PINHOE

Architects:
Snailum, Huggins & Le Fevre

Assistant-in-charge:
A. J. Creyke

Civil Engineering Consultants | Technical Division Engineering Department

Electrical Engineering Consultants | Messrs. Unilever Ltd., London

Quantity Surveyors:
W. E. Underwood & Son, F./A./A.R.I.C.S.

Contractors:
J. Long & Sons (Bath) Limited, (Director-in-charge, D. F. Maddox)

General Foreman:
Mr. E. Matthews

Asphalte Roofing: Asphalte Specialists, Ltd. *Cast Stone Dressing & Precast Concrete Roof Beams:* Bristol Stone & Concrete Co., Ltd. *Cycle Stands:* Alfred Odoni & Co., Ltd. *Electrical Installation:* South Western Electricity Board. *Floor Reinforcement:* B.R.C. Engineering Co., Ltd. *Grano Floor Finished & Steel Matting:* Surfastal, Ltd. *Glass Domelights:* Williams & Williams, Ltd. *Ironmongery:* Metal Agencies Co., Ltd. *Metal Letters:* Gardiner, Sons & Co., Ltd. *Metal Windows:* Rowe Brothers & Co., Ltd. *Overhead Doors:* Overhead Doors (Great Britain), Ltd. *Patent Glazing:* Hills (West Bromwich), Ltd. *Roller Shutters:* Shutter Contractors, Ltd. *Sanitary Fittings:* Gardiner, Sons & Co., Ltd. *Sliding Door Gear:* P. C. Henderson, Ltd. *Steel Deck Roof & Covering to Warehouse:* The Ruberoid Co., Ltd. *Structural Steel Work & Foundation Reinforcement:* Dawnays, Ltd., Southampton. *Ventilators:* Colt Ventilation. *Wood Block Floors:* Stevens & Adams, Ltd. *Camrex Non-Oxidizing Paint:* Camrex Paints, Ltd., Sunderland. *Other Paint:* Sherwoods Paints, Ltd.

ST. AIDAN'S HALL AND VICARAGE.

Speke, Liverpool

architect: BERNARD A. MILLER, B.Arch. F.R.I.B.A.

THIS new parish hall and vicarage form the first part of a comprehensive church centre for the new township of Speke. Work on the building of the church will start shortly. The scheme, which is one of the main points in the Church of England's building programme in the Liverpool Diocese, occupies an island site on the main cross axis of the town centre; with open views to north and south, and flanked by two-storey departmental stores on the other two sides. A courtyard scheme was adopted, with the church parallel to the main boulevard, the group arranged so that the buildings, linked naturally together, are dominated in all views by the tower and spire. The parish hall is at present temporarily used also for worship, besides providing a valuable centre for the community.

The Parish Hall

This consists of a hall to seat 300, with stage and dressing rooms, and in addition has a small hall, divisible into two classrooms, cloakrooms and a well-equipped kitchen. The structure is of load-bearing brickwork, faced externally with 2in Bedford grey bricks; all gutters and copings are in reconstructed Portland stone. The pitched roofs are of patent Broderick construction and consist of light timber trussed rafters bearing prefabricated Tentest panels with copper covering attached. The internal finishes are of a high standard, and the fact that the hall would serve temporarily as a church has led to the adoption of a decorated proscenium and tester to the stage.

The Vicarage

This has living room, dining room, study and five bedrooms, together with kitchen, etc., and garage. The same facing bricks are used, but to emphasize the domestic character a green Precelly slate roof has been adopted.

The Church

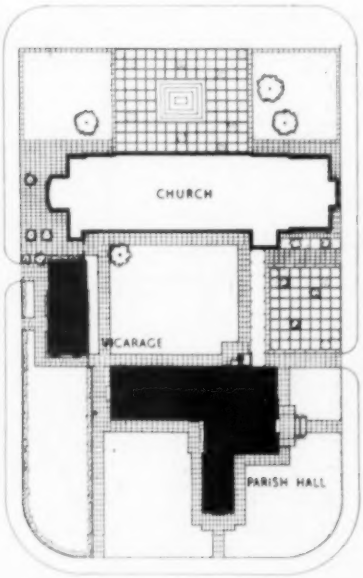
This is to seat 460 people and will have a R.C. frame with the main vault of Lamella wood construction. The choir and organ are in a gallery at the west end, and a view is obtained through a baldachino over the high altar into the Lady chapel beyond.

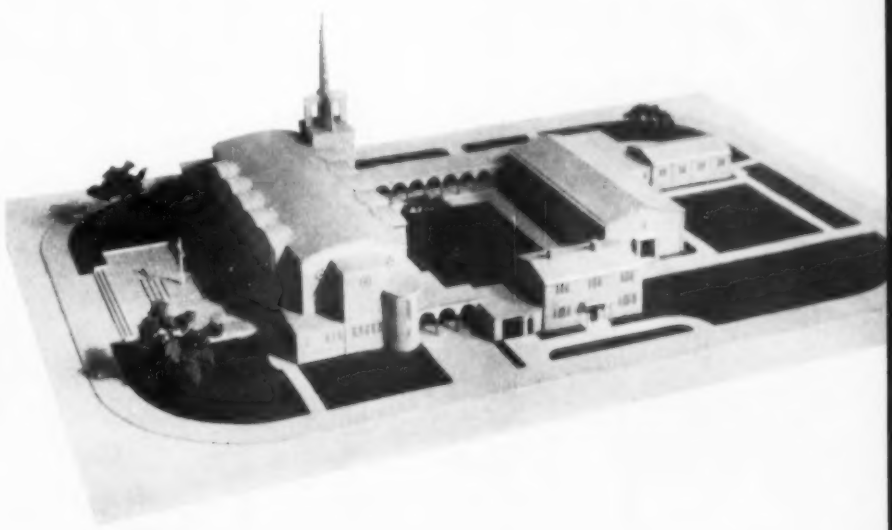
Cost Analysis

Speke Vicarage: Floor area—House, 1,560 sq ft. Outbuildings, 235 sq ft. Net cost, £5,250. This is a fixed-price contract, and this price includes all external works, interior fitments and quantity surveyor's fees but does not include architect's fees.

Speke Parish Hall: Floor area, 4,940 sq ft. Net cost, £17,805 16s 7d (does not include fees, furnishings, fences or paths). Net cost per sq ft, 72s 1d. Contract

Continued on p. 273.





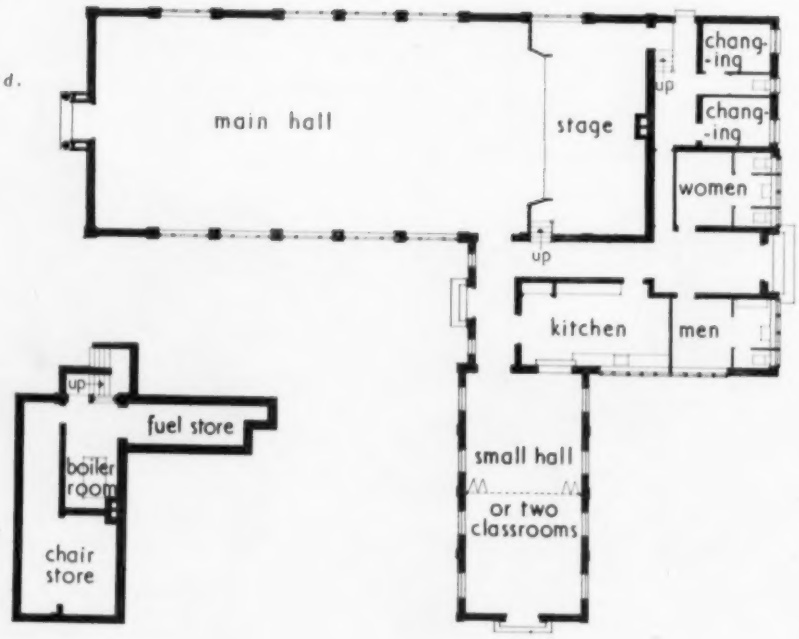
BLOCK PLAN AND MODEL OF THE SPEKE GROUP

St. Aidan's Hall and Vicarage, Speke

The Vicarage from North

PLANS OF THE VICARAGE
SCALE: 1IN = 20 FT

PLAN OF THE HALL
SCALE: 1IN = 24FT



General Contractor:
The Unit Construction Co., Ltd.

Artificial Stone:
Pearson Brothers.

Bricks:
Procter & Lavender.

Ceiling Paper in Hall:
William Morris;
Sanderson & Sons, Ltd.

Duct Covers and Frames:
Broad & Co., Ltd.

Electric Light Installation:
Winstanley & Barrett, Ltd.

Fabrics:
Ray and Miles, Ltd.

Fittings:
The Merchant Adventurers, Ltd.

Flats:
William Briggs Patent Roofing.

Flooring:
Alba Flooring Co., Ltd.

Heating:
Brightside Foundry & Engineering Co.

Ironmongery:
Campbell and Mabbs.

Metal Windows in Wood Frames:
Williams and Watson, Ltd.

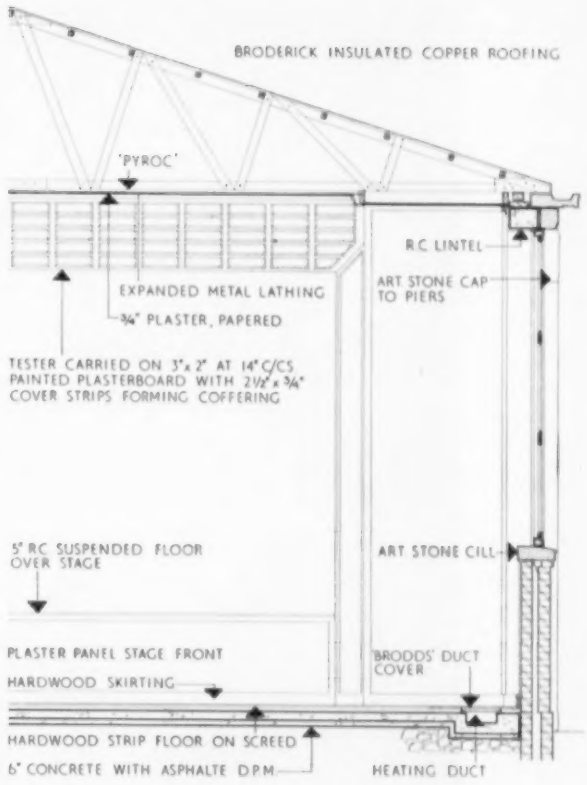
Roof Structure and Copper Cover:
Broderick Insulated Structures, Ltd.

Continued from page 271

date, October 1951. Elements of the net cost are as follows:—

	£	s	d
Work below ground floor level	2,484	8	9
Pitched roofs (structure and cover) ..	1,725	0	0
Flat roofs (structure and cover)	342	11	4
Floor finishings	833	13	5
Fireproof plastering to wooden ceilings and proscenium	620	14	11
Ironmongery	125	13	1
Metal windows	218	3	7
Artificial stone	1,112	19	7
Electrical installation	616	2	3
Heating installation	1,209	14	2
Drainage	623	5	0
Decorations	539	3	7

Two views of the Hall

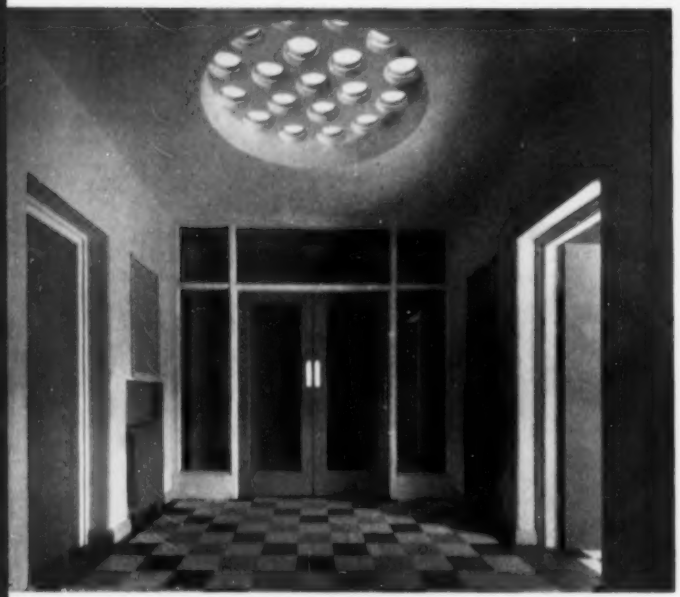

BRODERICK INSULATED COPPER ROOFING
'PYROC'
R.C. LINTEL
ART STONE CAP TO PIERS
EXPANDED METAL LATHING
¾" PLASTER, PAPERED
TESTER CARRIED ON 3" x 2" AT 14" C/CS PAINTED PLASTERBOARD WITH 2½" x ¾" COVER STRIPS FORMING COFFERING
5" R.C. SUSPENDED FLOOR OVER STAGE
ART STONE CILL
PLASTER PANEL STAGE FRONT
HARDWOOD SKIRTING
BRODDS' DUCT COVER
HARDWOOD STRIP FLOOR ON SCREED
6" CONCRETE WITH ASPHALTE D.P.M.
HEATING DUCT

Section, Hall. Scale: 1in = 5ft

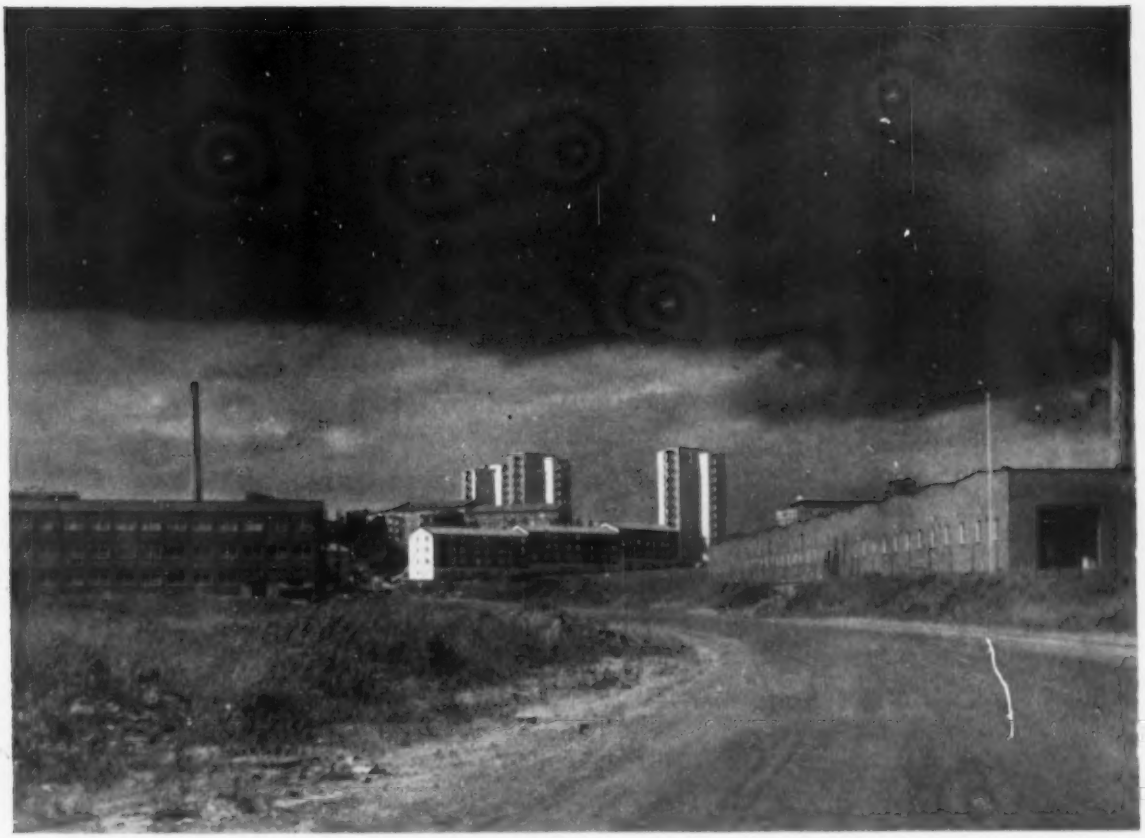
Interior of the Hall

St. Aidan's Hall and Vicarage, Speke

Entrance Hall



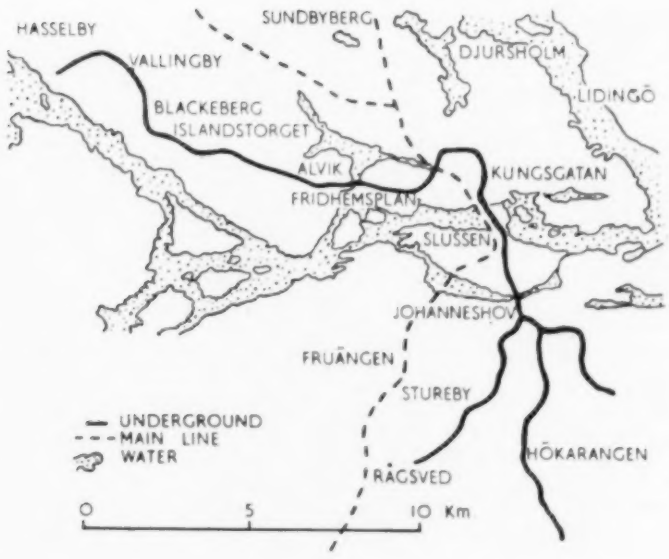
Temporary furniture



General view of Vällingby, a new neighbourhood unit, with one of the Underground railway sheds on the right.

Stockholm's Underground

Written and Illustrated by NORMAN WESTWOOD, F.R.I.B.A.



WITH only a short visit to Stockholm, it is quite impossible to obtain more than a general idea of the complexity of such a large undertaking as a completely new underground system. It was, however, possible with the help of a Swedish architect friend to learn something of the problem and also form my own opinion of the completed stations.

The business area of Stockholm is concentrated into a relatively small area but, owing to the siting of the city with its large expanse of water, greater Stockholm covers a wide area. This means that many people have to make considerable daily journeys to and from their work. Buses and trams were unable to deal with this problem and the number of private cars has increased enormously in the last few years.

Stockholm's Underground

View looking out of a typical station entrance. The panel above the doors is made of sheet steel and in some cases is already rusting. Bearing in mind upkeep costs, I thought the choice of materials in several cases had been ill-considered bearing in mind the hard use to which they will be put.

Above left: The "Tunnelbana" sign. Behind the "T" neon tubes floodlight the white background making a very simple and effective sign by night and day. Right: Detail of door spring contained within the top rail of the door.

Below: View from underneath the shelter at the Odenplan station.

The entrance to St. Eriksgaten Station, which is similar to several others. The structure is of concrete with a bush hammered finish, the sides being glazed with a reeded glass. The doors have a stainless steel frame with grey coloured plastic panels similar to "formica," and are made to open in one direction only. A neat type of door spring is embodied within the top rail of the door.

As far back as 1930 the problem of an underground was first discussed; this was when the population of greater Stockholm was about 630,000; in 1953 this had risen to over the million mark and it is still increasing. Generally speaking, only the portion of the system passing through the central area is below ground and this is comparatively near the surface. One of the exceptions to this is the station at Fridhemsplan which, due to natural levels, has unfortunately one very long escalator down to the platform levels.

At the present time two portions of the system have been completed—Slussen to Hokarangen and Slussen to Stureby in the south and Kungsgatan to Vällingby in the north-west. The connection of Kungsgatan to Slussen

Rain shelter over the entrance to the Odenplan Underground Station. Architects Holger Blom and Erik Glemme of the Stockholm Park Department. The general form and relationship of the shell concrete vault and the cantilever slab are exciting and interesting, but there is a very temporary looking collection of kiosks underneath which detract from the general effect. The concrete roof is left untreated.

with a bridge across the Mälaran will not be completed until 1957. The planning and construction of this four-track connecting link is extremely complicated and has necessitated the re-routing of the main railway from the south with a new bridge to carry it across the Mälaran to the central station. Work, however, is proceeding rapidly, streets are closed and the din of pneumatic drills and pumps is heard everywhere. I was told that the work has at last given an excuse to clear away a great deal of old and obsolete property which, without any bombing, is extremely difficult to get rid of. In order to minimize the time that streets are up and because the lines are on an average only about 10 metres below the ground level, it has been possible in a number of places to excavate and build the sides of the tunnel first, then form the roof using the ground as shuttering. Later, when the road has been reinstated, the inside of the tunnel is excavated. A large proportion of the excavation has been in rock but this, of course, is no new problem to the Stockholm architect or engineer.

The Swedish town planners can, I think, be justly proud of a piece of long-term planning. Apparently, when one of the large road bridges spanning the Mälaran was constructed 20 years ago, provision was made for a future rail track below the road as it was visualized that it was likely that the underground at some future date would cross at this point. It did!

The chief problem for the architect has naturally been the construction of the station buildings. Particular attention has been given to the correct flow of passengers at rush-hour periods; in one direction in the morning and in the other at the end of the day. After the rush hour a proportion of the entrance gates are usually closed. In the majority of the central stations the entrances are like that shown in the illustration with a flight of steps leading down to the booking hall. This is generally spacious and has bookstalls and shops leading off it. Tickets are obtained in the centre and after going through a wicket gate and ticket check you pass down a short escalator to the platforms. Incidentally, the escalators seemed to be slower running than those in London; this is particularly felt at Fridhemsplan where it takes an excessively long time to reach the platform level. This is aggravated at the present time by the fact that all the poster panels have been let to the same firm and are identical!

Generally, the walls are tiled in white or grey, entrance doors and ticket kiosks have stainless steel frames with panels of grey coloured plastic sheet (like "Formica"). Some of the concrete columns in the centre of the platforms are polished and have an extremely pleasant appearance but generally the concrete is left straight from the wood shuttering. In my opinion, the colour scheme is very dull and much more use of coloured tiling could have been used with advantage. My architect friend, however, stressed that the whole idea was that the scheme should be, as he said, "anonymous." I agreed that it was right to avoid any form of stunts that might date, but I still feel the whole treatment lacks interest and an opportunity of using colour has been lost. Posters won't do everything it liven it up! Even the purist will surely agree that large areas of grey concrete, however beautifully worked out the shuttering may be, can hardly provide a very stimulating background to people's daily travel.

The most interesting stations constructed so far are at Blackeberg and Vällingby, both being above ground and serving new neighbourhood units. Blackeberg, as can be seen from the photographs, has a delightfully simple booking hall, square in plan, and covered with a shell concrete dome. The form and planning of the station

Blackeberg Station. Architect Peter Celsing. Completed 1954. A very simple and pleasing plan consisting of a square shaped booking hall covered with a shell concrete dome. The hall can be approached from two levels and the track passes immediately underneath. The photo shows the station from the main approach at the lower level. Both externally and internally the concrete structure has been left untreated in any way. The shuttering has been beautifully worked out and gives a texture to the whole, but is this enough?

Above: General view inside main booking hall. Ceiling and walls are concrete left straight from the wood shuttering. The light fittings are made up of groups of fluorescent tubes.

Below: The stairway leading to the upper entrance. Note the double glazing.

A general view of the entrance to the booking hall from the upper level.

Blackeberg Station

are very pleasing but once more plain grey concrete inside and out is the finish. The hard surface of the dome is very bad acoustically. The station at Vällingby is in the centre of a large block of shops and offices which are still under construction, so no real idea of the whole conception can be obtained. The day lighting for the booking hall, as can be seen in the photographs, is obtained by

Stockholm's Underground

Vällingby Station. Architect Magnus Ahlgren, 1954. This station has only just been completed and is placed within a larger building of shops and offices. Once again the form is extremely interesting consisting of a square hall with an effective welded steel structure supporting a floating corrugated asbestos ceiling. All round the light enters through a

Vällingby Station

continuous corrugated Perspex roof light which is uninterrupted even at the corner junctions. Apart from a panel of dark blue tiles there is very little colour except for the natural grey of the asbestos sheet and plastic panels to the ticket control boxes. Posters may help to give a less austere note, but I cannot help thinking that by this "anonymous" approach a great opportunity is being lost to give the travelling public a gayer outlook on life as they go to work each day.

a continuous top light around the edge of the hall. This is, I think, highly successful and gives a most interesting form to the hall. Here I was cheered by the use of some dark blue tiling, but to counterbalance this the roof was left unpainted corrugated asbestos. We in this country are so tired of utility that colour and the use of interesting finishes are particularly sought after at the present time. Perhaps without a war in Sweden this very down to earth and "anonymous" character is understandable.

I only hope my slight criticism of this great undertaking will not be taken too seriously by my Swedish friends, but I do feel that there has been a consciously negative attitude taken in the design and decoration of all the buildings and even in the trains themselves.

The main hall

NEW PRINTING WORKS for the BANK OF ENGLAND at Langston Road, Debden

architects: EASTON & ROBERTSON

consulting engineers: OVE ARUP and Partners

THIS building, on which construction work began in June, 1953, is destined ultimately to replace the present Bank of England printing works of St. Luke's, and will provide enlarged accommodation and modernized plant. The site adjoins the London Transport station at Debden and is in an area reserved by the London County Council for industrial developments.

The accommodation includes administrative and general offices, work space for various types of printing, a chemists' section and ancillary works of various types, in addition to the requisite vaults and stores.

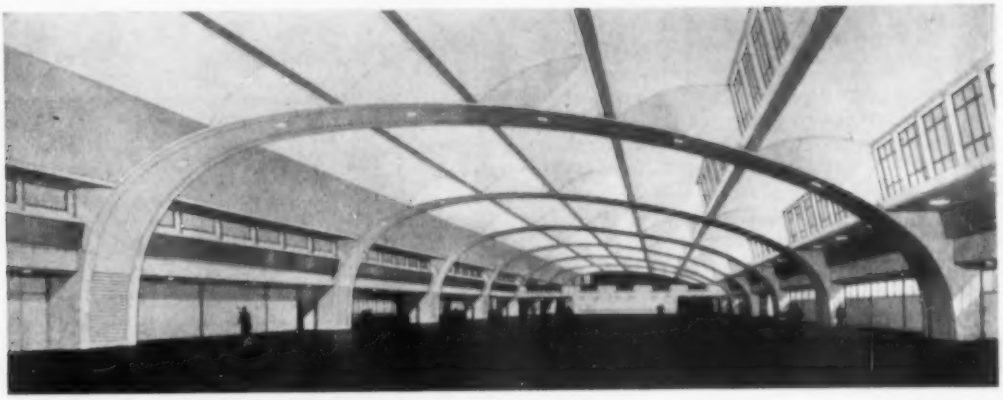
The site is about a quarter of a mile long and about 200yd wide, and the main building is some 800ft long with a maximum width of about 300ft. A second building, comprising the canteen and recreation and committee rooms is separate from the main building but connected by a subway. Total floor space will be approximately 443,000 sq ft.

The planning is based largely upon the productive flow for the printing processes. The main building is for the most part on two levels to take advantage of the sloping site. These levels are referred to as the upper ground floor and the lower ground floor: the former consists of production space and the latter contains heating and electrical plant, lavatories, cloakrooms, engineers' workshops, etc. The main production hall occupies the entire north side of the building; south of this hall is the general printing hall, storerooms and a smaller production hall. On the south elevation there are in addition three-, four- and five-storey blocks which contain office accommodation, research laboratories, etc., and the east elevation comprises similar multi-storey blocks above an underground boiler house.

Methods of Construction

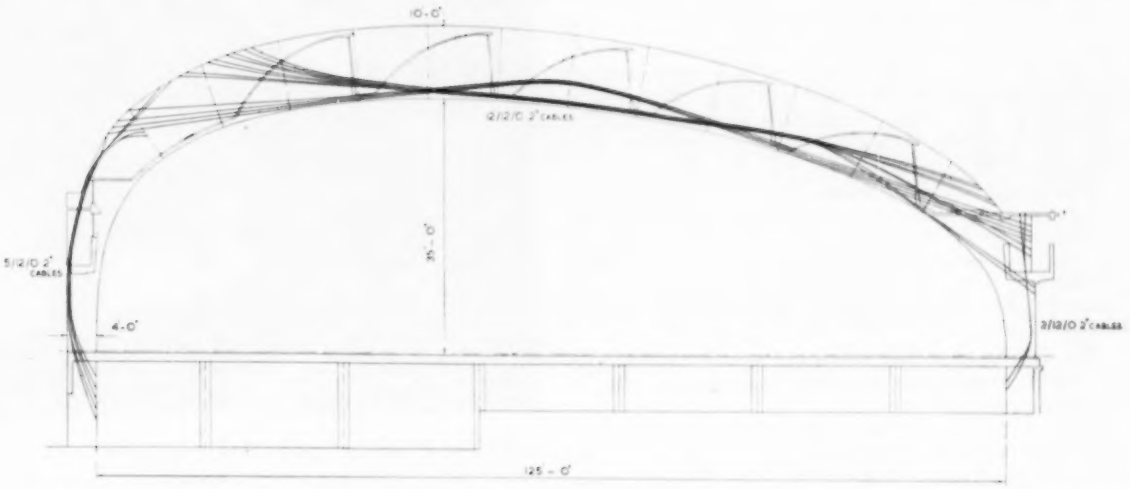
The upper ground floor area is covered by three types of roof construction. How these roofs were to be built largely determined the method of building throughout, because equipment required for their construction also had to be employed for the rest of the job.

The construction methods to be used were determined by the repetition of structural elements. In the case of the main production hall the design of twenty-two identical bays of arched beam and concrete shell roof construction has readily provided these elements. There is also repetition to a lesser extent in other parts of the building: in a small production hall with five bays of arched beam and shell construction,



The main hall

This perspective drawing by Lawrence Wright was in the Royal Academy in 1953.



DETAIL OF THE STRUCTURAL ARCHES IN THE MAIN HALL SHOWING THE PRECAST SECTIONS AND THE PATHS OF THE POST-TENSIONING CABLES.

and in another hall with balanced cantilever beam and shell construction of four free-standing bays.

The Main Hall

For the main hall the problem was to cover a large space without internal supports and to give daylighting to this floor space by means of north-light. An arched roof was chosen on æsthetic grounds, and a mathematical curve was used to give the necessary clearances, and to produce a smooth curve which gained the architect's approval. In order to accommodate ventilation, heating, electrical and plumbing services it was decided to separate each pair of arches by a 3ft 6in gap: this gives twenty-two sets of identical structures, each consisting of two arches with north-light shells spanning between them. The arches were designed to be prestressed by the Freyssinet system.

The dimensions of the arch legs had to be kept to a minimum up to the level of the security gallery roof for reasons of planning. The tie force acting at upper ground floor level on the arch produced high bending moments on this narrow section. It was therefore decided to use prestressing in order to reduce this tie force and, in consequence, the bending moments in the legs of the arch. Prestressing also helped to reduce the width required for the members and, as a result the self weight which formed a large proportion of the total load.

Many factors were taken into account before it was decided to precast the main arches of the roof of the main production hall in segments and to pour *in situ* the concrete of the shell roofs uniting these arches, so as to form a bay some 36ft long. The need for accuracy in the shape of the arches and identity from bay to bay was important, but so also was the quality of the surface finish of the concrete in members of slender sections in which are buried prestressing cables in close proximity. Of even greater importance was the accurate location of the stressing cables. The speed of construction was very vital to this part of the work since, if construction here proved to be slow, then the rest of the job would be equally slow.

By precasting the centre section of the arched beams and making units of about 5 tons weight each a major part of the problem was solved, since the accurate shape of the arch could be ensured by casting every arch on an identical bed. As this bed would be laid out flat the concrete itself could be placed with a maximum control around accurately placed

Bank of England Printing Works, Debden

duct tubes, and a good surface finish obtained. Also these arched beams carry fixings for mechanical equipment installed in the roof spaces, and by this method the precise location of these fixings and other features could be ensured.

A 5-ton derrick with 120ft jib was therefore installed to handle the precast elements, and also to assist in the remainder of the construction.

A steel gantry was designed on which to erect the precast arched units. This 60-ton gantry is articulated in such a way that the setting up at each bay to ensure an accurate profile is easily achieved by jacking at the main supports. The shutters for the shell roofs, which span from arched beam to arched beam, are each framed up in one piece to span between the main towers of the gantry. These shutters are raised and lowered in the gantry frame by a system of pulleys and winches and, once the main frame of the gantry is jacked to its correct alignment and profile, the shell roof shutters are winched up to a fixed position and bolted, each on six bolts.

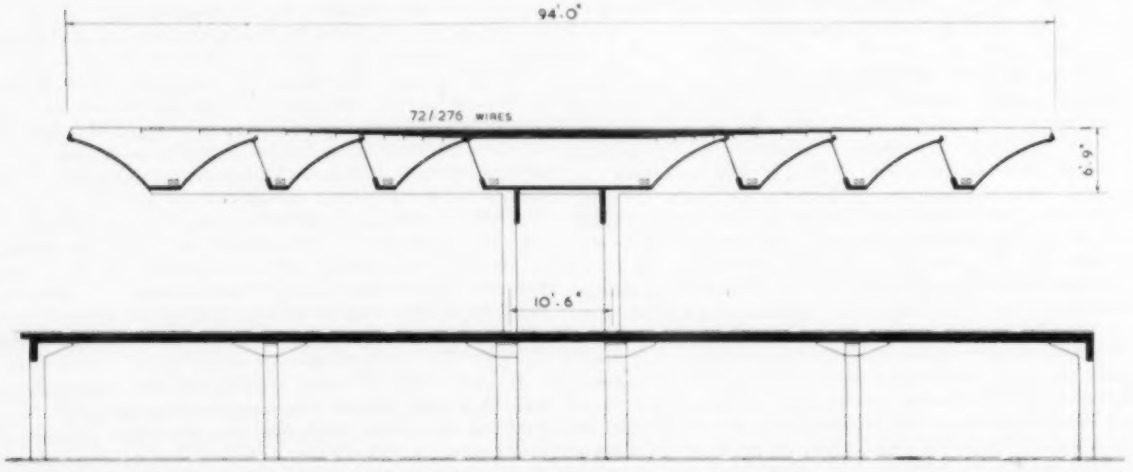
After the concrete of the shells, which is poured *in situ* from skips handled by the derrick, has hardened, the barrel shutters are easily lowered by the winches. After stressing, the gantry is also lowered by the jacks on to the bogies so that the whole gantry with all its formwork is moved on rails to the next bay; the entire process of lowering and erecting takes only a few hours.

The lower parts of the arched beams and galleries were cast *in situ* and shutters in large units were used which could be handled by the derrick; all prestressing ducts were cast in. An exception to this is the fluted front of the galleries. As this is a major decorative element in the design it was precast on a teak shutter so that a first-class finish could be ensured.

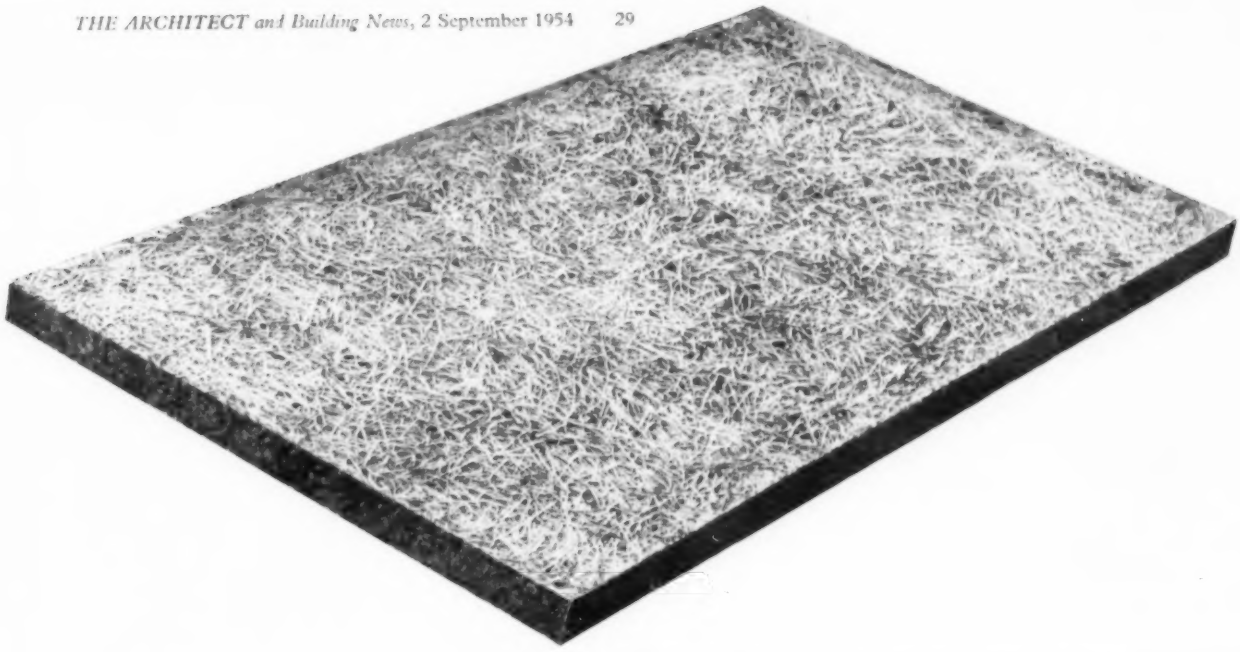
The upper ground floor, that is, the floor of the main hall, the general printing hall and the smaller production hall, is generally of flat slab construction. In the main hall, where columns could be fairly closely spaced (bay sizes 18ft × 19ft) there are no capitals. This helped the detailing of services, which are fairly extensive under this floor. Bracket capitals are used under the floor of the general printing hall where larger bays (24ft square) are required.

[Continued on page 283

The South side of the Main Hall. The upper part of the gallery will be glazed with special glass for security, allowing one-way vision only.



SECTION THROUGH THE MUSHROOM FLOOR AND BALANCED CANTILEVER ROOF OF THE GENERAL PRINTING HALL



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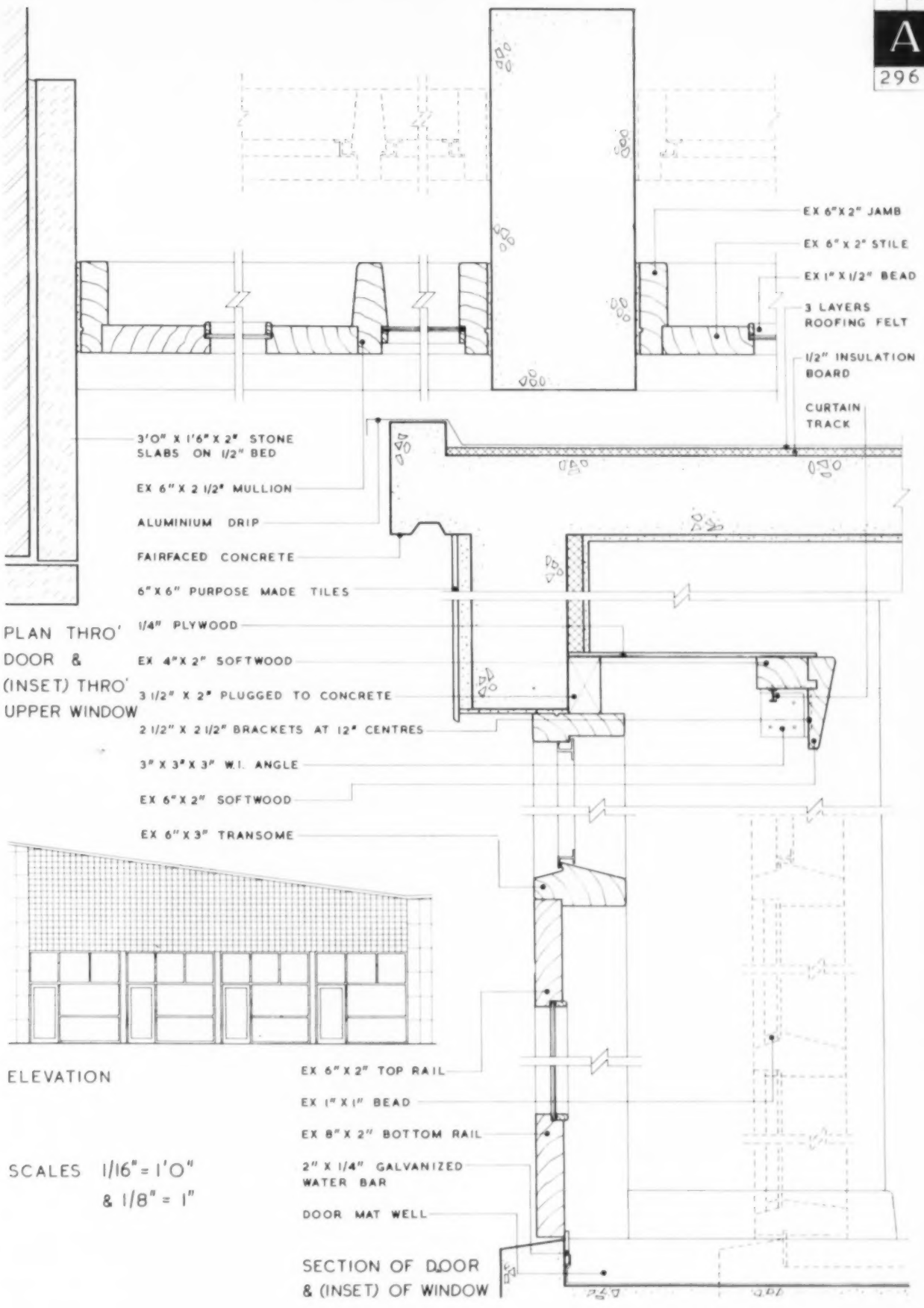
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Ref. 324

General Printing Hall

The roof of the general printing hall covers the space between the multi-storey blocks on the south elevation, and the structure of the main hall. It was necessary to provide an expansion joint at each side of this roof and a balanced cantilever structure was therefore selected, making a complete break with the structure on either side. These cantilevers were prestressed to limit the deflection and to reduce the thickness of beam which would have been required in reinforced concrete.

Maximum use was made of the 5-ton derrick in the construction of this roof, which is some 100ft wide. It consists of four free-standing bays, and each bay is made up of four cantilever beams spanned by a series of north-light shell roofs. Each shell is about 24ft long, so that each bay of three sets of shell roofs with cantilever supporting beams is 72ft long.

The shells are precast and weigh about 5 tons each, while the beams are cast *in situ* with shutters in large sections which can be handled by the derrick. The beams are some 7ft deep and 9in and 6in thick; they are cast *in situ* because the prestressing system adopted is completely exposed during construction, so that there is the minimum obstruction in the section of the beams and proper placing of the concrete to give good-quality consolidation and surface finish is more readily achieved.

The cantilever beams are prestressed on the Gifford-Udall-CCL system by a series of single wires assembled in 12 layers, one upon the other, each layer of wires being longer than the one below it in such a way that a precise distribution of stress in the beam can be ensured.

The anchorage of the wires was specially designed and consists of 1in thick metal plate buried and anchored in the concrete of the beams in such a way that it can take a load, in the case of the 9in thick beams, of some 60,000 lb.

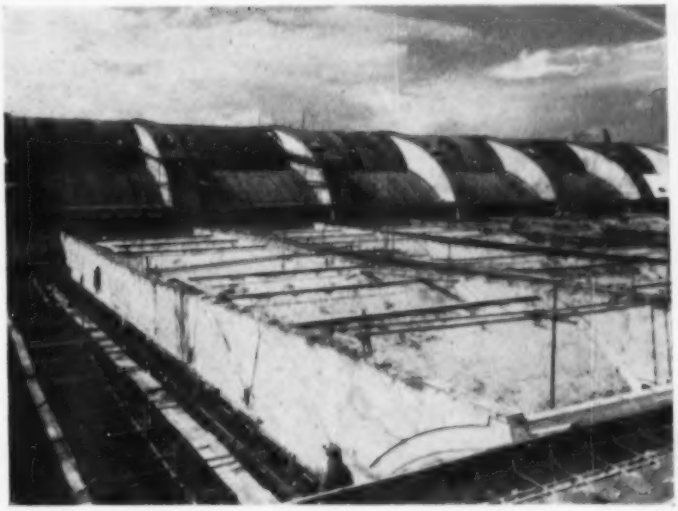
When the beams are cast, and before they are stressed, the precast shells, which are constructed so that they are about 1in shorter than the space between the beams, are lifted by the derrick and placed between the beams. There are eight shells between each pair of beams. The space between the ends of each shell and the face of the beam, in which there is a ¼in recess, is then packed with mortar. When all the shells in the 72ft bay are in position and the joints packed with mortar, the whole roof is then prestressed in a transverse direction; that is to say, along the shells and through the beams, with six prestressing wires to each shell. As there is a series of eight shells, there are therefore 48 wires to each bay. When the shells have been prestressed and loading of the beams is thus provided, the beams are also prestressed. This is done by working upwards from the shorter wires, layer by layer, until the longer upper wires are stressed.

It was necessary to devise a method of temporarily loading the ends of the cantilever, so that, as the stressing of the beams proceeds, there is no over-stressing of the concrete at the top of the beam in compression. In addition, since it was necessary ultimately to concrete-in the prestressing wires on top of the beam to protect them from the weather, this concrete, because it is not prestressed in the same way as the remainder of the beam, may crack, due to differential movement, with consequent exposure and corrosion of the wires.

It was decided, therefore, to load the beams in two stages. First, to load them sufficiently to ensure that the concrete is not over-compressed during stressing. Secondly, to induce deflection in the cantilevers before surrounding the prestressing wires with concrete, so that when this concrete is mature the release of the loads would result in an upward

General view of the site from the West.

Roof of the General Printing Hall.



Balanced cantilever beam over the General Printing Hall.

Bank of England Printing Works, Debden

movement of the cantilever and a consequent compression in the concrete on the top of the beam.

This loading is provided by a steel rod anchored by a stirrup to the underside of the ends of the cantilever, and joined to a short beam which itself is anchored to the heavy floor by means of bolts. One side of this short beam is bolted to a plate in the floor, and the other side joined to a similar plate by means of single-wire prestressing. In this way, by prestressing the wire stage by stage, and shimming against the anchor, progressive loading can be given to the steel rod and therefore to the beam. This loading is measured both by reading the gauge of the stressing jack and by strain gauge readings on the rod. Loads up to about 7 tons are in this way quickly placed on the cantilever.

Multi-storey Blocks

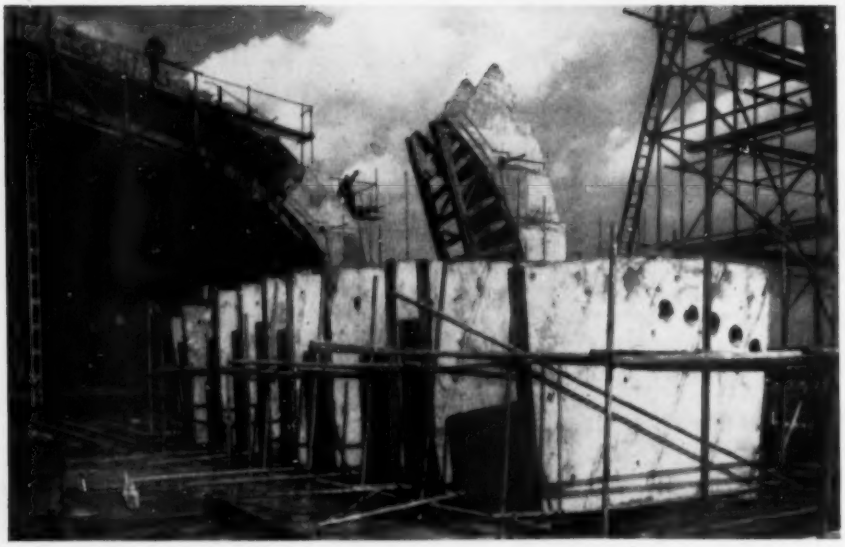
The multi-storey blocks which form the south elevation have spans which vary from 24ft to 30ft. The structure of these buildings consists of rib beams 15in deep at 2ft centres, covered by a 3in slab. These ribs span on to a 21in deep edge beam which is in turn supported by columns at 12ft or 6ft centres. The same rib section was used for all spans and loads, and the amount of reinforcement was modified to suit the different conditions. A false ceiling conceals all the electrical and heating services.

Work on the superstructure of the south half of the job is also controlled by a 5-ton derrick with 110ft jib. The precasting technique can be widely used in this part of the building because, although there are many types of construction, the elements are frequently repeated.

The architect has made considerable use of concrete in the elevational treatment. A number of the main columns some 30ft long have been precast, since this gave continuous unjointed concrete and a concrete finish which is practically flawless. Also, as the columns were cast on the site,

[Continued on page 285

The formwork of the arches to the main hall is divided into eleven segments. The steel reinforcement is confined within each section and the whole arch is connected by duct tubes which form the cavities for the post-tensioning cables.



The arch segments placed ready to be lifted into position. They will be supported on a travelling gantry, which can be seen under the previous bay, and which also carries the formwork of the cast in situ shells.

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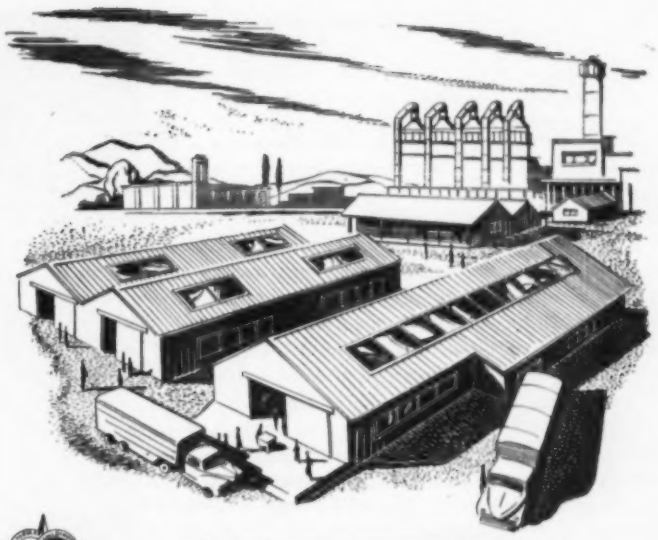

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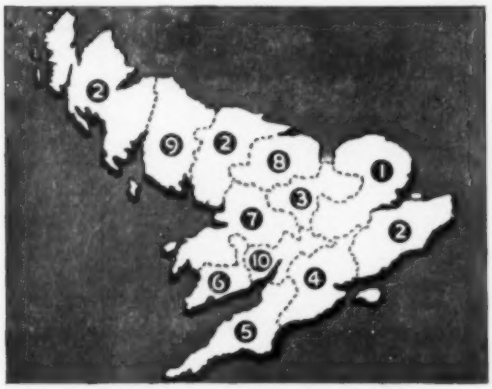

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10. THE IRON & MARBLE COMPANY LIMITED, 33/35 Victoria Street, Bristol. *Phone: Bristol 27471 (10 lines)*

Two into one...

The reception room of the Tack Organization—originally two small rooms—was recently reconstructed and redesigned by Heal's Contracts.

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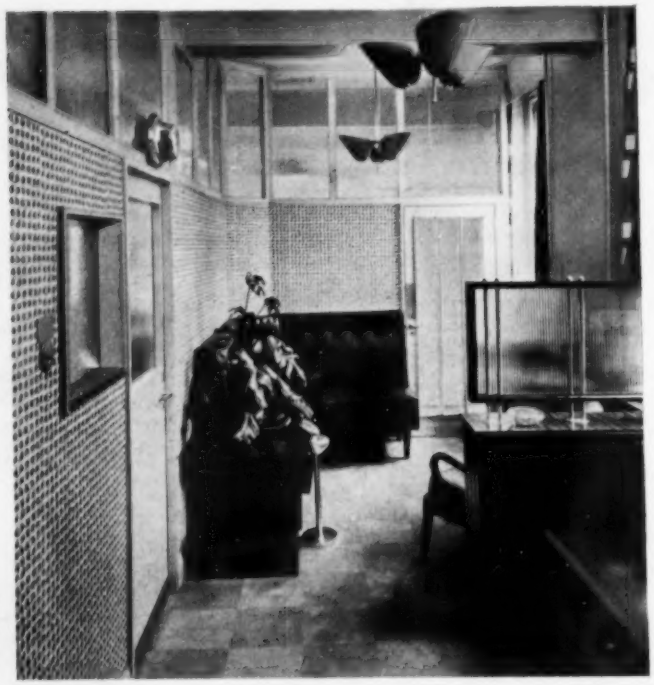

The reception room of the Tack Organization, 1-5 Longmoore Street, London, S.W.1

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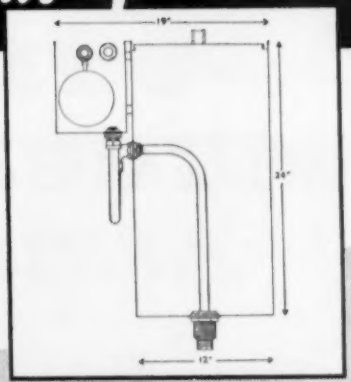
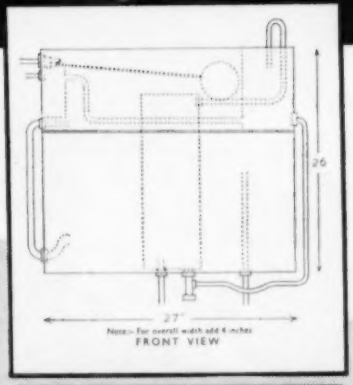


DURHAM



CALORIFIER

ROLYAT TANKS

PATENT HOT WATER

THE ROLYAT TANK CO. LTD. · CROMWELL ROAD · YORK

Bank of England Printing Works, Debden

the quality of the concrete could be closely supervised so that the necessary weather cover on the steel could be ensured. These columns weigh some 4½ tons.

The ribbed floors are also precast, by reducing the design to inverted "L"-shaped units. The horizontal arm of one "L" rests on a recess in the horizontal arm of the next. Where the floors have loads which are heavier than normal, continuity from unit to unit is ensured by pre-stressing across the units and in the floor thickness by the single-wire Gifford-Udall-CCL system. The precast floor units, with reinforcement projecting at each end, are united by *in situ* cast concrete beams at their ends. These beams also join the precast columns on the front elevations.

All these floor units, some 1,600 in number, were cast on the site and handled by the derrick which serves the south part of the building.

The Canteen

The canteen is a reinforced concrete building covered by three different types of shell roof for the kitchen, the dining-hall and the recreation room respectively.

Concrete Wall on North Side

There is provision for possible expansion along the uninterrupted north flank of the building. The concrete retaining wall on this side of the site is designed on the cantilever principle. It is about 1,000ft long and varies in height from about 3ft or 4ft to 14ft.

The architect required this wall to be finished with a vertical corrugated pattern, and since the wall had to be constructed in a fully strutted trench it was necessary to provide holes through the wall. This meant that the holes had to be arranged in a regular pattern as they would be prominent in the finished work. The major part of the wall was therefore precast in units of about 9ft in length, and weighing up to about 5 tons, in order to ensure the regular placing of the holes and also a very good finish to the surface. These units were cast face downwards.

After the main concrete foundation of the wall had been formed in the trench, with the reinforcement projecting, the precast units were lowered through the trench timbers and placed in position, and the junction between the lower part of the wall and the foundation cast with *in situ* concrete.

Foundations and Ducts Below Ground

The foundations are generally isolated pad foundations on brown clay, which at a depth of 7ft below original ground level was capable of sustaining a load of 2 tons per sq ft.

Other work below ground consists of ducts of various sizes to accommodate heating and electrical services. These ducts are in reinforced concrete; the walls were precast in about 10ft lengths, generally 6ft 6in high, and jointed with 12in lengths of *in situ* concrete; these units were placed with a mobile crane.

Central Batching Plant

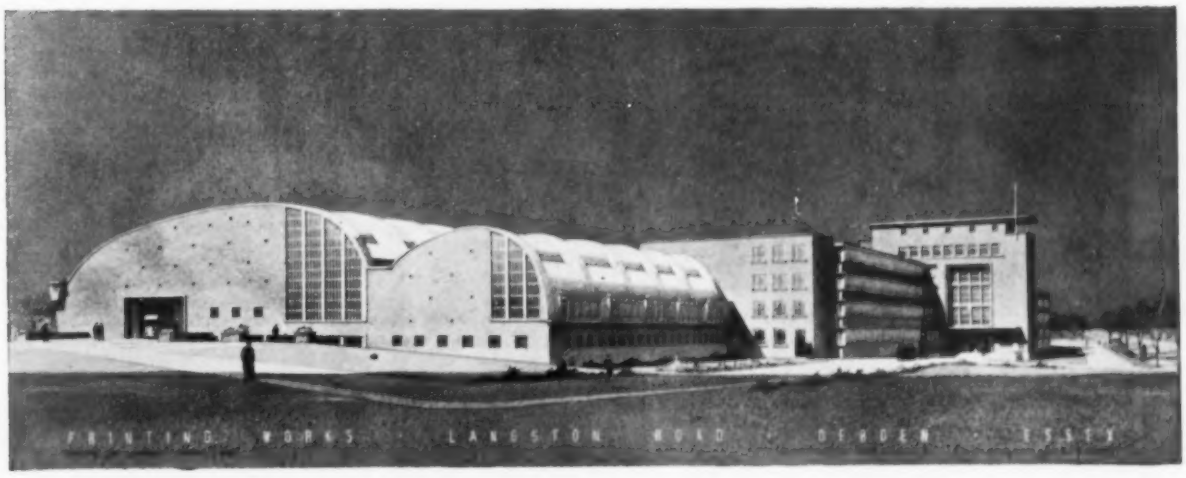
Since the specification for the concrete work called for some 15 different mixes and types of concrete, all to be vibrated, it was decided to make a central batching plant to produce the major part of the concrete, with two smaller batching plants in remote parts of the site. The central batching plant was provided with four aggregate hoppers and two cement hoppers handling two different sorts of cement. This batch discharged into weigh hoppers and thence into an electrically driven loading hopper, and was controlled by one man feeding into two 1 cu yd concrete mixers. One of these served skips travelling on a 2ft gauge track, while the other served a concrete pump. In this way the heavier *in situ* work in foundations and machine floor construction was pumped for long distances, while the concrete transported by skips on 2ft gauge track could be brought close to the derricks for hoisting to high shell roofs and columns.

As this central batching plant was adjacent to the pre-casting yard, ready distribution of the small but frequently required quantities of different grades of concrete was ensured.

Formwork

Formwork for the job, apart from the travelling gantry, has been designed and made on the site. To give the necessary high quality of finish to the work resin-bonded ply has been widely used.

Practically the whole of the *in situ* part of the concrete has been cast in steel pan formwork. In the case of the main machinery floors, which are from 12in to 15in thick and designed on the mushroom principle, which gives large areas of flat soffit surface, it was possible to fabricate forms on a framework so that they could travel in panels some 24ft long. This ensured the minimum of work in striking and fixing.

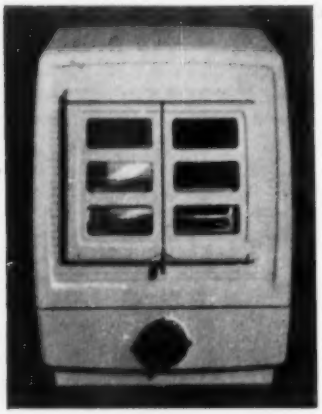


Reproduced from a drawing by Lawrence Wright.

MOSAICS

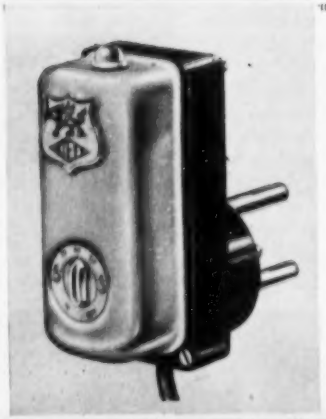
SERVICES
WATER HEATING
B6/26

The Ascot Multipoint heater, models 709 and 709b, and the S.G. 32/1 Bath water heater have a redesigned case. Made in one piece except for the top, it eliminates the many edges where the porcelain enamel might have chipped on the earlier models. Accessibility to the interior has not been sacrificed and the fact that this new cover is cheaper to make will, to some degree, offset the steady increase in manufacturing costs of the unit as a whole. By Ascot Gas Water Heaters, 255 North Circular Road, Neasden, N.W.10.



SERVICES
SPACE HEATING
B3/54

The new Rayburn Room Heater, made by Allied Ironfounders Ltd., is a free-standing stove suitable for rooms of 1,500 to 3,500 cu ft capacity. Size 18in wide, 23½in high and 10in deep, it has a Vitreous enamel finish in Beige, Mottle, Fawn and Black and Black Copper and green Alisheens. Price varies with colour from £16 10s. The doors may be opened for direct radiant heat, there is a double casing for normal convection heating.



SERVICES
ELECTRICAL ACCESSORIES
B5/44

A new plug-in thermostat for controlling the temperature of rooms warmed by electric fires or radiators by Cyril Kieft & Co. Ltd., of 13 Dudley Road, Wolverhampton. This thermostat can be fitted to any electric heating appliance as easily as a three-pin plug, without any additional wiring. The indicator is set to the temperature desired and no further attention is needed. Size: 4¼in by 2in by 2in, it is normally supplied with 15 amp. round pins or 13 amp. rectangular.

With ivory or brown enamelled cover mounted on walnut plastic base with chromium plated fittings, the thermostat is priced at 51s or 58s 6d with a neon indicator.

FITTINGS
SINKS
C2/22

A recent addition to the range of Easiclene Sink Units, known as the "Countess," by Easiclene Porcelain Enamel (1938) Ltd., of Darlaston, South Staffs. Available with either single or double drainers, with porcelain-enamel or stainless steel tops. The model illustrated costs £18 10s. The cabinets are of wood construction and the single units are available with either left or right hand tops. The porcelain enamel tops are coloured cream, pastel green or white, the handles are red and the cabinets cream. The sink tops are exportable but not the cabinets.

INDUSTRIAL NOTES

● Engert & Rolfe, Ltd., who celebrate their centenary this year, inform us that their contracts manager, Mr. A. G. Burchell, retired last month after fifty years of faithful service. Mr. George C. Brown, who will now take charge, has a vast experience of flat roofing work and is an expert in all forms of roof decking.

● A new company, the South Wales Concrete Pipe Co., Ltd., was registered this week with offices at Lanelay Works, Pontyclun, Glam.

This enterprise, with a nominal capital of £50,000, is a venture sponsored by Woolaway Constructions, Ltd., of 11 Canon Street, Taunton, and the Hume Pipe and Concrete Construction Co., Ltd., of London.

The objects of the company, which intends to commence production in the near future, include the manufacture of concrete pipes by the Hume centrifugally spun process in all sizes from 6in to 72in diameter. The company aim to make the finest quality products from Welsh materials, primarily for the Welsh market.

● The British-Swedish Chamber of Commerce in Sweden, with headquarters in Stockholm, is expected to be in full operation by the end of the summer.

The first steps towards setting up the Chamber were taken over a year ago by local British and Swedish businessmen, encouraged by H.M. Ambassador. Firms in the U.K. were approached and over 250 have already indicated their willingness to join. An adequate capital and reserve fund has been provided by the British and Swedish founder members. The project has the full approval of the Board of Trade and of the F.B.I.

A small Committee of Administration has been appointed in Stockholm. The London Steering Committee, which organized the raising of a starting fund, consists of Sir Charles Hambro, K.B.E., M.C., Sir George Binney, D.S.O., and Mr. P. F. D. Tennant, O.B.E., Overseas Director of the Federation of British Industries. Mr. R. Hunt Taylor, head of the F.B.I. European Department, is acting as honorary secretary to this committee, and all enquiries about the Chamber should for the time being be addressed to him at 41, Buckingham Palace Road, London, S.W.1. (Whitehall 6711.)

● The second trade fair and production exhibition of the German plastics industry will be held at Duesseldorf from October 16 to 31, 1955. Those taking part will include not only those industries which produce and process the plastics, but also once more the makers of machinery for plastics, and this time on an international basis.

● The use of copper in building, for roofing and for water, gas and sanitation services, in all parts of the country, has resulted in increased demands for lectures and demonstrations by the C.D.A. Building Engineer, Dr. E. Carr, and his assistants. These popular lectures can be illustrated with sound films or lantern slides where projection facilities are available. Principals of technical colleges and secretaries of masters' and operatives' organizations, etc., wishing to take advantage of this C.D.A. service, which is free, are advised to make early application to the Copper Development Association, Kendals Hall, Radlett, Herts.

CONTRACT • NEWS •

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

OPEN

BUILDING

ALDRIDGE U.C. (a) 10 aged persons' bungalows, Stokes Street, Rushall. (b) Engineer and Surveyor, "The Poplars," Leighswood Road. (c) 2gns. (e) Sept. 16.

* * *

BECKENHAM B.C. (a) 1 block of 4 maisonettes in 2-storeys, Paris Lane, (b) Borough Engineer, Town Hall. (c) £2. (e) Oct. 1.

* * *

BIRMINGHAM C.C. (a) A 2- and 3-storey building comprising 17 shops, 18 flats and office accommodation, Heathway, Shard End. (b) City Architect, Civic Centre, 1. (c) 2gns. (e) Oct. 20.

* * *

BIRMINGHAM C.C. (a) Conversion of existing 3-storey buildings into single-storey lock-up shops, etc., 292-295, Monument Road. (b) City Estates Officer, 141a, Great Charles Street, 3. (c) 2gns. (e) Sept. 10.

* * *

CHADDERTON U.C. (a) Public wash-house adjacent to Middleton Road Swimming Baths. (b) Engineer and Surveyor, Town Hall. (c) 2gns. (e) Sept. 15.

* * *

CHESTER R.C. (a) 10 garages, Great Saughall. (b) Council's Architect, 16, White Friars. (c) 3gns. (e) Sept. 13.

* * *

CORNWALL C.C. (a) Art room, classroom and lavatory block, St. Austell Grammar Girls' School. (b) County Architect, County Hall, Truro. (c) 2gns. (d) Sept. 6. (e) Sept. 24.

* * *

CRAWLEY DEVELOPMENT CORPORATION. (a) 541 dwellings, Ifield—Stage 11. (b) Chief Architect, Broadfield, Crawley. (d) Sept. 9.

* * *

ESSEX C.C. (a) Schoolkeeper's house, Lennard County Secondary School, Ockendon. (b) County Architect, County Hall, Chelmsford. (d) Sept. 6.

* * *

ESSEX C.C. (a) **Monkwick County** Junior School, Colchester. (b) County Architect, County Hall, Chelmsford. (d) Sept. 4.

* * *

FILEY U.C. (a) Reinforced concrete reservoir (400,000 gallons capacity) and ancillary works, Rosedale, near Filey. (b) D. H. Moore, Valley Bridge Parade, Scarborough. (c) 2gns. (e) Sept. 29.

* * *

LONDON—FINCHLEY B.C. (a) 20 single and 3 double garages, Elmhurst Estate, East End Road, N.2. (b) Borough Housing and Town Planning Officer, The Avenue, Regents Park Road, N.3. (c) 3gns. (e) Sept. 27.

* * *

***LONDON—ISLINGTON B.C.** (a) 4-storey block of 15 dwellings, Tollington Park (Sedgley House Extension), N.4. (b) Town Clerk, Islington Town Hall, Upper Street, N.1. (c) 3gns. (d) Sept. 14. (e) Oct. 18. See page 46.

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LOWESTOFT B.C. (a) Construction of a practical room, extensions to Main Assembly Hall, and provision of toilets and showers, Roman Hill Secondary Boys' School. (b) Borough Engineer, 49, High Street. (c) 2gns. (e) Sept. 13.

* * *

NEWTOWN AND LLANIDLOES R.C. (a) 11 houses, Caersws. (b) W. B. Bond, Windsor House, 49, Calthorpe Road, Edgbaston, Birmingham, 15. (c) 2gns. (e) Sept. 18.

* * *

N. IRELAND—BELFAST. (a) St. Monica's New Intermediate Girls' School for 800 pupils, Ravenhill Road. (b) J. A. Tynan, 68, Royal Avenue, Belfast. (c) 10gns. (e) Sept. 14.

* * *

N. IRELAND—DERRY. (a) New church at Creggan Estate, Derry. (b) Messrs. A. Edward Smith and Co., 4, Wilton Place, Dublin. (c) 10gns. (e) Sept. 14.

* * *

N. IRELAND—NEWRY. (a) New Intermediate Boys' School, Armagh Road. (b) W. H. McEvoy, Ulster Bank Chambers, 73, May Street, Belfast. (c) 5gns. (e) Sept. 17.

* * *

NORTHUMBERLAND C.C. (a) Ambulance garage, etc., Wideopen. (b) County Architect, County Hall, Newcastle-upon-Tyne, 1. (c) 2gns. (d) (d) Sept. 15.

* * *

NORTHWICH U.C. (a) 81 dwellings, Leftwich Estate. (b) Engineer and Surveyor, Council House, Church Road. (c) 2gns. (e) Sept. 11.

* * *

NOTTINGHAM C.C. (a) Alterations to Lenton Radford Branch Library, Lenton Boulevard, Nottingham. (b) City Engineer, Guildhall. (c) 2gns. (e) Sept. 17.

* * *

SEDGEFIELD R.C. (a) 6 shops with 6 flats above, West Cornforth, and 10 shops with 10 flats above, Trimdon Village. (b) Clerk of the Council, Council Offices, Sedgefield, Stockton-on-Tees. (c) 2gns.

* * *

STOCKTON-ON-TEES B.C. (a) 23 houses and 42 flats, Newtown. (b) Borough Architect, 28, The Square. (c) 1gn. (e) Sept. 13.

* * *

STONE R.C. (a) 50 houses, Blythe Bridge. (b) Messrs. Hollins, Jones and Oldacre, Lloyds Bank Chambers, Newcastle. (c) £2.

* * *

WOKING U.C. (a) 30 prefabricated concrete garages on 4 estates within the Urban District. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (e) Sept. 13.

* * *

YIEWSLEY AND WEST DRAYTON U.C. (a) 9 garages, Yew Avenue, Yiewsley. (b) Council's Engineer, Drayton Hall, West Drayton, Middx. (c) 1gn. (e) Sept. 18.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

BEXLEY B.C. (1) Extensions to secondary school. (2) Bexleyheath. (3) S. G. and A. Agombar, 353a, Norwood Road, London, S.E.27. (4) £16,658.

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PETERBOROUGH CORPORATION. (1) 26 houses. (2) Walton Estate (3) S. B. Fairchild, 11, Welland Road, Peterborough. (4) £28,721. (1) 42 houses. (3) H. J. Firman, Ltd., Peterborough. (4) £47,186.

* * *

SOUTH CHINGFORD, ESSEX. (1) 32 married quarters for Metropolitan Police. (3) H. Fairweather and Co., Ltd., St. James's Lane, London, N.10. (4) £61,997.

* * *

SUTTON COLDFIELD B.C. (1) Shops, maisonettes, etc. (2) Falcon Lodge Estate. (3) Henry Boot and Sons, Ltd., Beeches Road, Birmingham 22a. (4) £44,072.

* * *

IPSWICH B.C. (1) 32 flats. (2) Chantry Estate (section 2a). (3) A. G. Duncan, 185, Foxhall Road, Ipswich. (4) £33,990.

* * *

ILFORD B.C. (1) Aged persons' flats. (2) Huntings Farm. (3) Hawker-Smith, Ltd., 1, West Street, Erith, Kent. (4) £22,072.

* * *

HAYWARDS HEATH. (1) Bus station for Southdown Motor Services, Ltd. (3) Ringmer Building Works, Ltd., Ringmer, near Lewes.

* * *

HARROW B.C. (1) 31 houses. (2) Pinner. (3) Lancasters Contractors (London), Ltd., 30, Ealing Road, Wembley. (4) £52,556.

* * *

CARDIGAN B.C. (1) 40 houses. (2) Greenland Meadows. (3) E. D. Evans, Blaenannerch, Cardigan. (4) £61,000.

* * *

AYLESBURY R.D.C. (1) 24 dwellings. (2) Long Crendon. (3) R. and F. Vyles, Temple Street, Brill, near Aylesbury. (4) £31,437.

* * *

ROCHDALE B.C. (1) 78 dwellings. (2) Kirkholt Estate. (3) George Wimpey and Co., Ltd., London, W.6. (4) £95,480.

* * *

LONGBENTON U.D.C. (1) 160 houses. (2) Fordley Estate. (3) J. H. Rogers, Regent Terrace, North Shields.

* * *

CITY OF LONDON CORPORATION. (1) Remainder of building work on new flats estate. (2) Golden Lane area. (3) Geo. Wimpey and Co., Ltd., The Grove, Hammersmith, W.6. (4) £716,799.

* * *

DUNDEE B.C. (1) 190 cottages and 114 flats. (2) West March Estate. (3) C. Gray (Builders), Ltd., 4, Francis Street, Dundee. (4) £37,528.

* * *

BRIDGWATER B.C. (1) Site works. (2) Sydenham Estate. (3) Hawksley Construction Co., Ltd., Hucclecote, Gloucester. (4) £53,483.

* * *

BECKENHAM B.C. (1) Thirteen blocks of flats (172 dwellings). (2) Adjoining Crystal Palace Road. (3) S. G. and A. Agombar, 109, Elmers End Road, Beckenham, Kent. (4) £365,901.

* * *

SEDGLEY U.D.C. (1) 72 houses. (2) Gorge Road. (3) Tomlinson Bros. (Sedgley), Ltd., Bilston Street, Sedgley. (4) £105,252. (1) 76 houses. (3) J. Ashmore (Builders), Ltd., Bromford Lane, West Bromwich.

* * *

DEWSBURY B.C. (1) 150 dwellings. (2) Overthorpe Estate. (3) Geo. Wimpey and Co., Ltd., Deanswood View, Moortown, Leeds. (4) £197,902.

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* * *

KEIGHLEY B.C. (1) 90 houses. (2) Braithwaite Estate. (3) F. Shepherd and Sons, Ltd., Blue Bridge Lane, York. (4) £115,544.

* * *

WORKINGTON B.C. (1) 50 houses and 90 houses. (2) Salterbeck Estate and Moorclose Valley. (3) John Twiname, Ltd., Brigham, Cockermouth, Cumberland. (4) £61,858 and £112,204.

* * *

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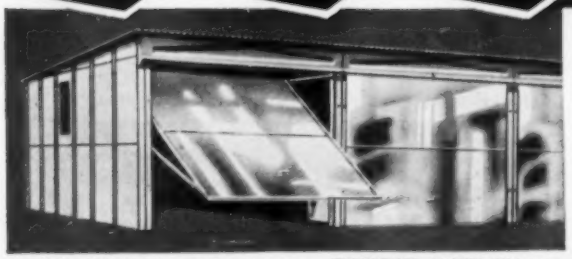

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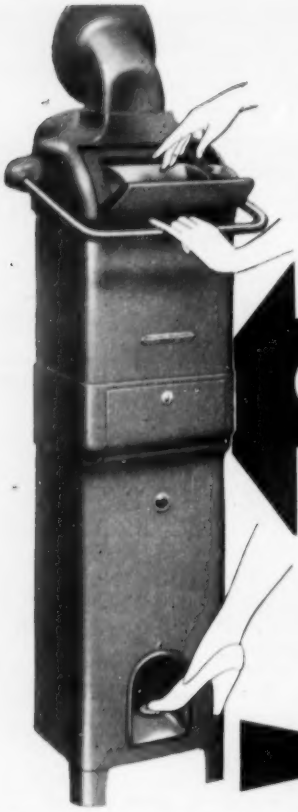

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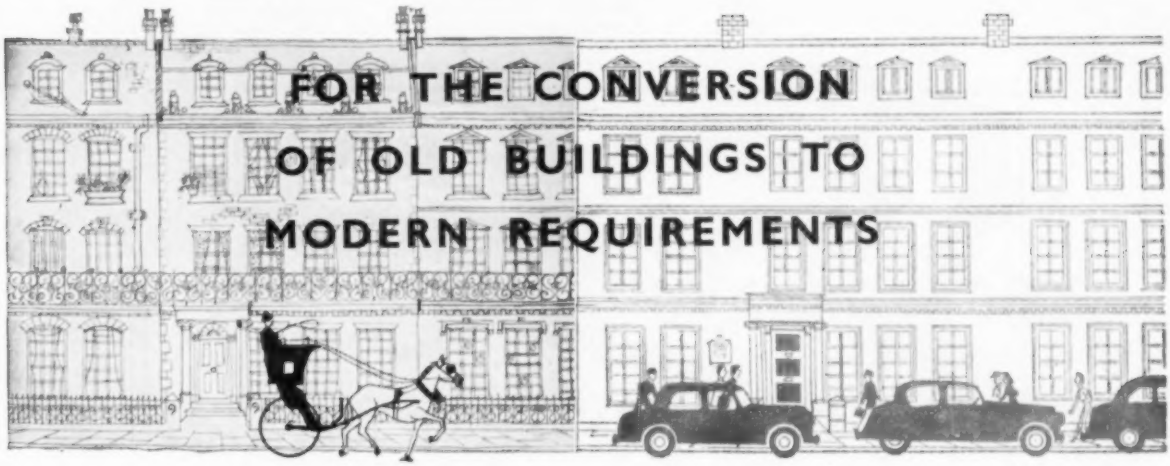

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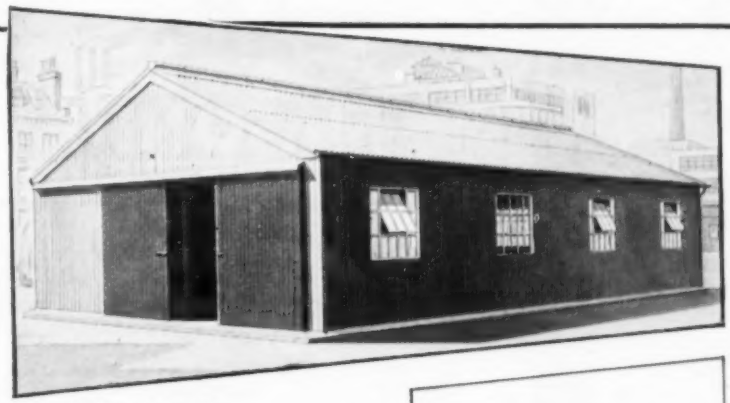

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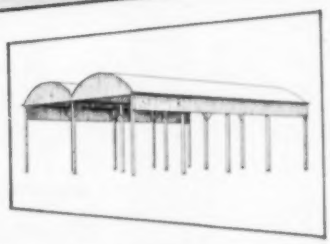

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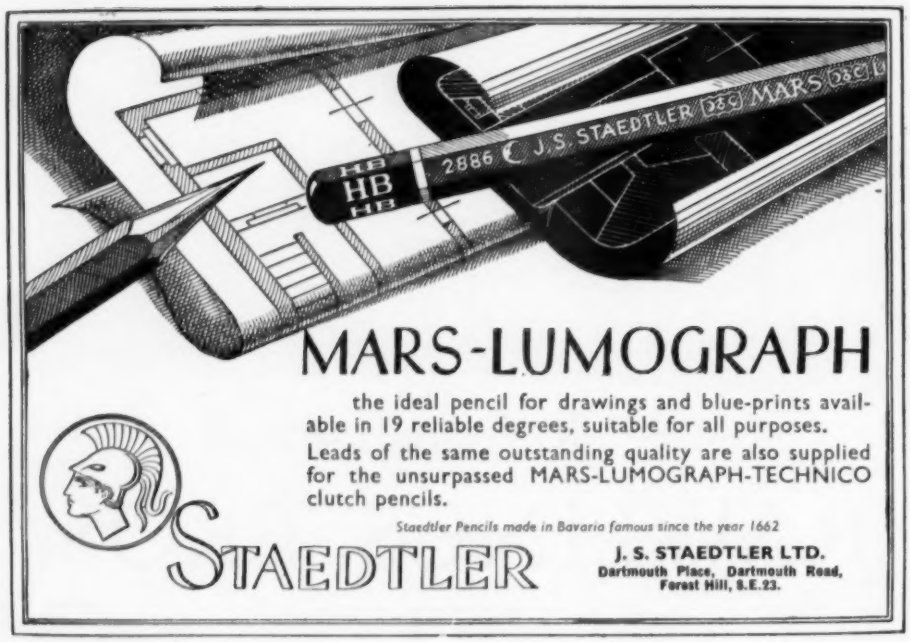

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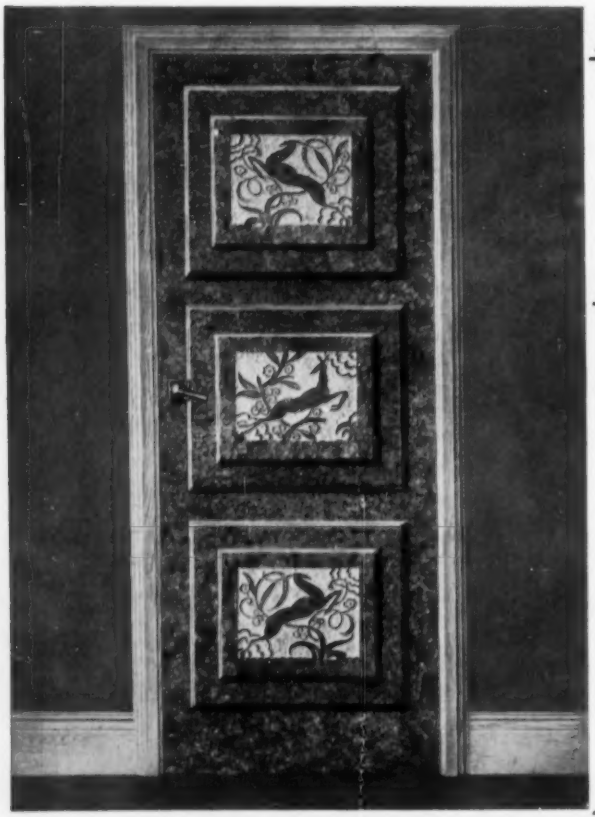

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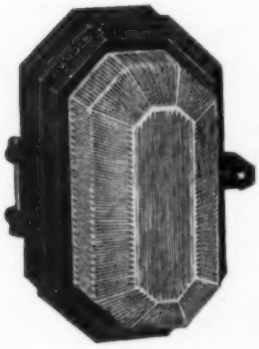

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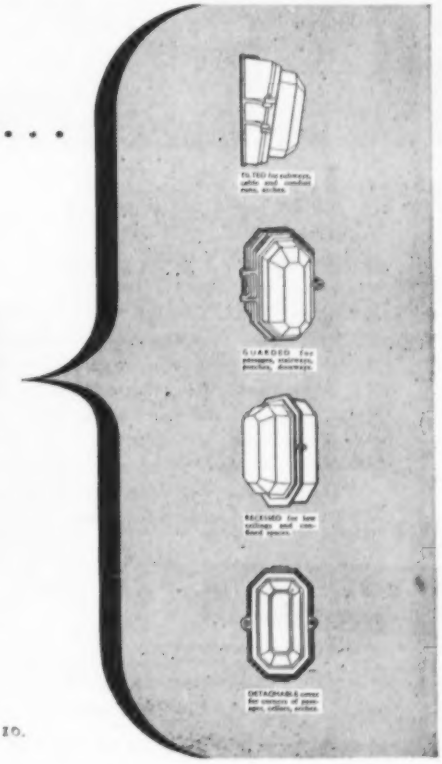

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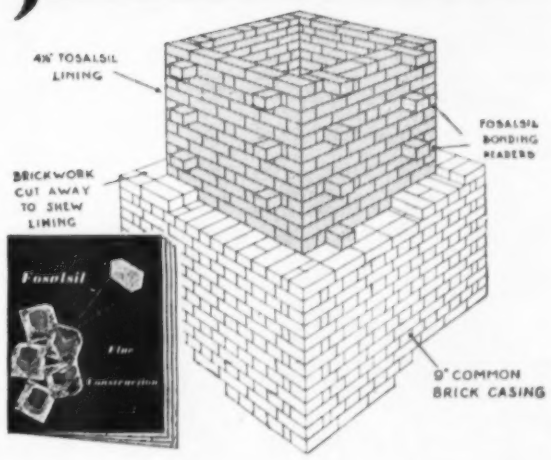

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September 22nd: Landscape—Designed and Natural, Miss S. Crowe, F.I.L.A.

October 6th: The Landscape Tradition, G. P. Youngman, F.I.L.A.

October 20th: Landscape and the Law, B. Hackett, M.A., A.R.I.B.A.

November 3rd: The Physical Background, B. Hackett, M.A., A.R.I.B.A.

November 17th: Landscape as a Design Medium, H. F. Clark, F.I.L.A.

December 1st: Economics of Landscape Design, A. Grove, A.M.T.P.I., A.I.L.A.

December 15th: Landscape and the Community, Forum.

Enrolment will take place in Room 9, 5.30-6 p.m. before the first lecture. The fee for the course, which must be paid at time of enrolment, will be £1 11s 6d. Detailed syllabus may be obtained on application to the College Office.

E. L. RUSSELL,
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[8290

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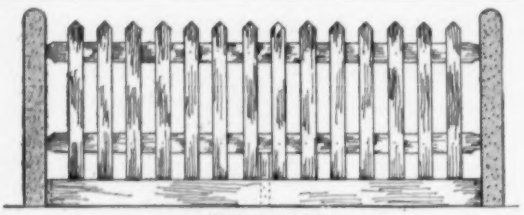

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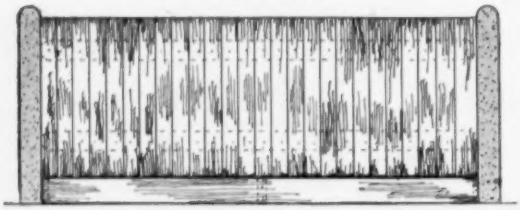

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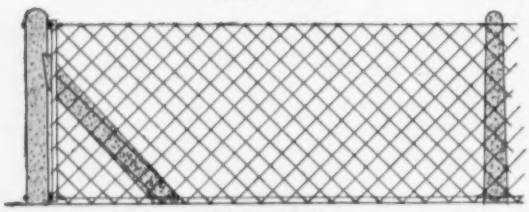

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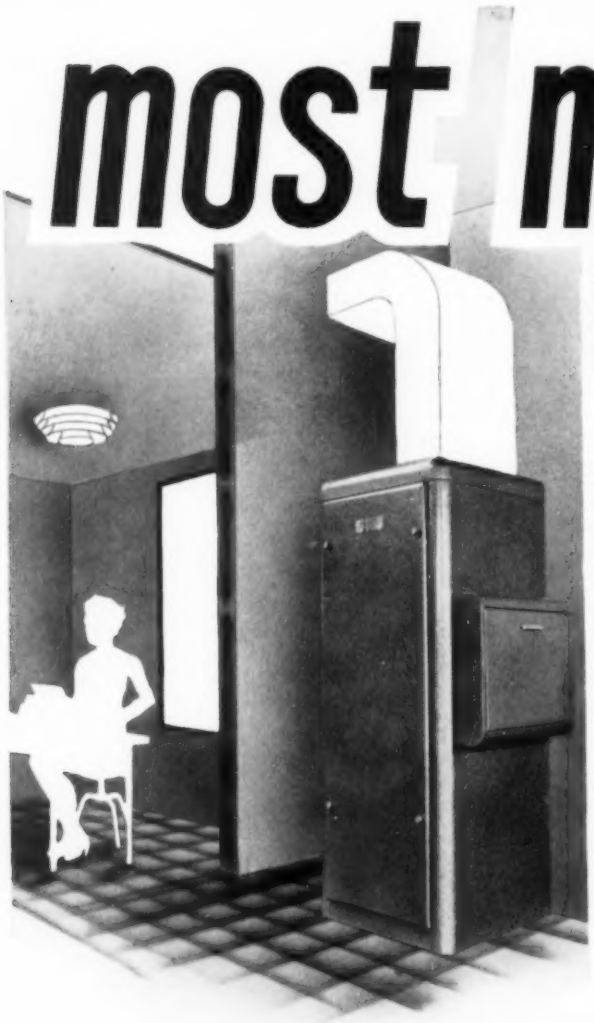

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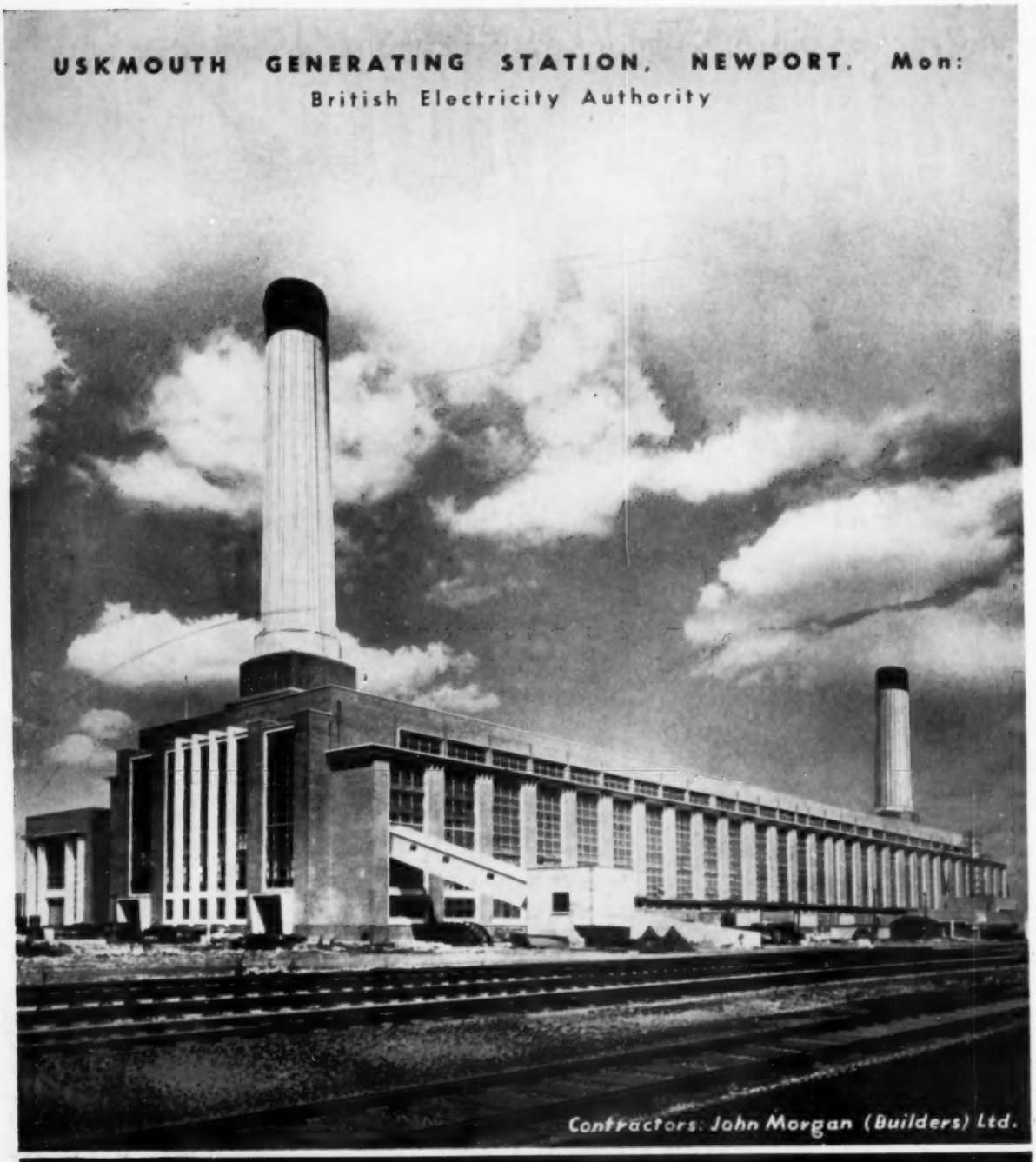

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